INDUSTRIAL COMBINATION

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PREFACE

THE purpose of the following pages is to study the problem of industrial combination from some new points of view. Not the least important of these is derived from the fact that this book is written in England, where Trusts and Cartels have not yet become a matter of public agitation. To a great extent, foreign literature on this subject is political rather than economic in tone, and descriptive rather than analytical in its content. While there seems to be room, therefore, for an English economic study of the most pressing question of industrial organization, it is impossible not to acknowledge the greatest debts to foreign economists who write from nearer the centre of the problem. It will be evident how much I owe to Dr. Liefmann, Professor Jenks, and Professor J. B. Clark. I have sought to use their work without retraversing their ground. The general scheme and analysis of this book is original; in one chapter I have tried to indicate why it appears to me that this question cannot be taken as part of the same study as labour combination.

In only one of the controversies which the combination movement has aroused can this volume be said to take a side. I do not think that the Trusts and Cartels can properly be regarded as a step towards Socialism. In this respect my work has a point of view different from that of Mr. Macrosty, whose *Trusts and the State* focusses in one light all the aspects of the combination movement, and that light the Socialist one.

Whether, or how long, or with what modifications in structure, Trusts and Cartels will endure in the twentieth

century is, in my view, impossible of prophecy. It is possible only to analyse the conditions, favourable or the reverse, whose further evolution will increase or lessen their title to be regarded as the representative structures of the future.

The division of this book is as follows: In Part I. are analysed the factors of competing strength, in order to study the effect of combination on each of them. No doubt, productive efficiency is the factor which must tell in the long run; but there are so many short runs in the long one that it would be an imperfect study which neglected the part played in the competitive struggle by bargaining and other forms of industrial strategy. Although detailed policies are in constant change, I hope that the classification of this part is elastic enough to include them. Part I. is on the whole a deductive study: in Part II. are considered more inductively the present-day conditions which have fostered industrial combination, and have led it to take such different forms in America and on the Continent. In Part III. some questions of public expediency come up for brief treatment.

In its original form this work was submitted in 1904 to the Fellowship Electors of Trinity College. I am greatly indebted for criticisms to Professors Marshall and Foxwell and Mr. C. P. Sanger; and my work has been entirely recast for publication. While I am now solely responsible for every opinion which is expressed here on a very wide subject, I take the opportunity of paying my tribute of thanks to Professor Marshall, to whom I owe my guidance in economic study, and whatever may be of value in my work.

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Trinity College, Cambridge,
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Bolen, *Trusts and the Tariff.*

Walker, *Monopolistic Combinations in the German Coal Industry.*

de Leener, *Syndicats Industriels en Belgique.*

Raffalovich, *Trusts, Cartels, et Syndicats.*

Kollmann, *Der deutsche Stahlwerks-Verband.*

INDUSTRIAL COMBINATION

INTRODUCTION

COMBINATION AS A "REPRESENTATIVE METHOD"

INDUSTRIAL combination may be defined as "a method of economic organization by which a common control, of greater or less completeness, is exercised over a number of firms which either have operated hitherto, or could operate, independently. This control may be either temporary or permanent, for all or only for some purposes. The motive and, while it lasts, the effect of combination is to create over market conditions an influence for greater, more conscious, and more centralized regulation; and this influence varies with the proportion of operating capacity over which control is obtained."

The broadness of this definition is rendered necessary by the variety of structures which claim the title of industrial combination—a variety due to intensity of organization, to extent of time, to sphere of influence, to circumstances of original formation.

Thus, according to our definition, a combination is a result, but not necessarily a process. It is not true that all combination has been "entered into" by the firms it includes. This is, no doubt, the usual method of formation, there having been an antecedent period of independent competition. In such cases combination is both an historical process and a resulting organization;

the historical process is also an important clue to the significance of the combination as regards motive, justification, and probable stability. As a rule, the process is one which implies contraction of the enterprise of the combining firms. But combination may and does exist without this historical implication of the name; a firm, for instance, extends its enterprise by building new works in various parts of the home and foreign markets; this is the expansion of a firm, not the contraction of a number of firms. Combination then refers only to the structure as one which has many parts but one common control. The refineries, for instance, of the Standard Oil Trust did not "enter into" a combination; they are the results of the enterprise of a combination.

The American Census of 1900 defines combination with essential reference to an historical process of contraction. "For the purpose of the Census the rule has been adopted to consider no aggregation of mills an industrial combination unless it consists of a number of formerly independent mills, which have been brought together into one company under a charter obtained for the purpose. We therefore exclude from this category many large establishments comprising a number of mills which have grown up, not by combination with other mills, but by the erection of new plants or the purchase of old ones."[1] This attitude is apt to cause misjudgment of the possibilities of combination. For combination which supervenes on competition is usually, by admission, abnormally burdened with excessive capital, the charges for which disguise its real efficiency. It is undesirable to exclude from consideration the structures which are most likely to be normal and fully efficient. Further, it must cause legal anomalies if the State, in its endeavour to control

[1] Vol. VII., p. lxxv.

industrial combinations, took account only of those whose process of formation had been obtruded on public notice, and passed over others whose powers of extortion might be no less formidable.

In our definition the unit of industrial combination is the firm—the self-contained establishment which alone, under modern conditions, has economic efficiency for the supply of goods. A vital distinction is therefore to be maintained between industrial combination and the combination of men or masters. The latter are factors or elements of the full economic unit, useful only when organized together in the firm. As we shall see later, the chemistry of combination of firms is of a different order from that of combination, so to speak, within the firm; the affinities are different, for while the firm, because of its completeness as an economic unit, stands mainly in a negative relation to other firms of the same kind, the individual workman, because of his incompleteness as an economic unit, stands in relations of positive dependence both on his employer and on his fellow-workmen. The study of industrial combination cannot be regarded as merely a continuation of that of labour combination. The special significance of the former lies in the nature of the unit it treats of.

The firm which is to be regarded as our unit is the "representative" firm, the structure which is typical of a period of economic development, which has access to all the normal economies of that period, and is of the size which is suited to their most efficient use. It has had a "fairly long life, and fair success," is "managed with normal ability," while its size takes account of "the class of goods produced, the conditions of marketing them, and the economic environment generally.[1]"

[1] Marshall, *Principles*, p. 397 (IV. 13. 2).

The goods which this firm supplies are freely transferable, and it is open to the competition of the national or international market. The problems and causes of combination are distinct in the case of firms which supply untransferable goods, or services that are inseparable from a fixed plant. Wideness of the market for goods is an essential ground of the industrial combination with which we are directly concerned.

There is a limit to the growth of the representative firm, dependent on the efficiency of internal organization, and the external conditions of marketing at any time. This limit must be taken as given. The question of industrial combination is not that of production on a larger scale, but of organization of firms already producing at maximum efficiency. All arguments for combination which depend only on an increase of the scale of production are irrelevant. Since the fully efficient firm is taken as the unit, it is evident that combination must depend for its value on the readjustment of relations between such firms; it is on this that the emphasis of inquiry must fall. On the other hand, all arguments which contrast the Trust or Cartel with the "small" producer, and they are frequent, are beside the mark for the same reason. Some firms have entered Trusts though they already had a capitalization greater than that of other Trusts.

If this limit is supposed to have been reached, the question arises whether further economies are obtainable by an organization of representative firms, which shall bring them all under one control and readjust their relations to each other in the common interest. That is to say, we may ask whether combination may not be the "representative method" of organization in the twentieth century.

There are some tendencies of economic thought which would hinder further consideration of this question, and give it a negative answer on general grounds. Combination is a conscious and deliberate interference with those relations of producers which would be adjusted "in the long run" by the force of Natural Selection. A deep-seated belief in Natural Selection leads to suspicion of all such interference. We find that combination is opposed to competition as a new method to an old one which it is superseding; as an artificial to a natural one; as one which seeks to graft moral considerations on the purely economic force of independent self-seeking. When such ideas are in the air, combination is regarded as a method representative, not of the normal economic tendencies of a period, but only of special and transient opportunities for good or evil.

An answer to such objections will incidentally define the relation of combination to the competitive system. It is, in the first place, invalid to oppose combination to competition as a new to an old method, to allege that, with the rise of the former, "the era of competition is coming to an end." This is untrue both in fact and in analysis. Combination is not monopoly. The strict economic analysis of monopoly would not apply to any combination which has yet existed; it implies a control of supply which is not only complete but indefeasible; it would be true of a legal monopoly behind a very high tariff. For the study of combination, it is only a regulative theory; it gives the limiting case, but all realistic study is well within the limit. Combination always stands opposed by a more or less formidable body of independent producers at home or abroad, and has always to reckon with substitutive goods. In order to hold its position, it requires to maintain the strongest competitive force

within its own structure, and it takes the greatest pains to do so. In the external market it employs against its rivals competitive methods of exceptional severity; there is no competition like that between one or two great organizations. No one who is acquainted with the policy of the Standard Oil Trust or the Westphalia Coal Cartel would be tempted to regard combination as the foe of competitive methods.

Even if combination led to the building up, in open markets, of great monopolies, it would not destroy but exemplify the strength of competition. The highest form of this strength is shown when new competitors do not arise to challenge the position. The combination, further, can only hold off their "potential" competition by keeping competition alive in its own internal affairs. There is, of course, something paradoxical in the assertion that the absence of competitors is the best proof of the force of competition. This is the paradox of a limiting case, like the assertion that moral laws are of no effect in Paradise. And the paradox is lessened if we consider all the aspects of competition. What does not hold good under a strong monopoly is the determination of price by cost of production—that is, by freedom of substitution. Yet the methods by which a monopoly holds off competitors so as to check this freedom, are competitive methods; the boycott and the corner in materials are aspects of competing power, no less than productive efficiency. These aspects are emphasized by combination, in all but a few cases. They are not negations of competition, but special methods. A monopoly cannot rest on anything but competing power, since competition is not one of many economic forces, but a name for economic force; but it can rest largely on other aspects of competing power than productive efficiency. It has a large outlay on what are

in fact, however disguised, expenses of competition or insurance against competitors.

Secondly, it is a false antithesis which opposes combination to independent competition, as the moral to the selfish system. That men should seek to do for the common interest what each has hitherto done for private gain is in all spheres a mark of social progress; and every form of economic combination can and does plead the highest ethical motives. "Government and co-operation," Ruskin says, "are in all things the laws of life; anarchy and competition the laws of death." But if we attend to possibilities alone, it is clear that combination may be a great force for the moralization of industry, but may also be a great force for extortion; and that these possibilities increase *pari passu.* Again, it would be illogical to assert that private gain was the sole motive of independent producers; if so, it must have been for private gain that they entered into combination. It is further inaccurate in point of fact to compare the independent method to the "nasty, poor, brutish, short" lives of Hobbes' pre-social State, as is implied in many a commentary on this system, or even to compare it to absolute "warfare." Firms operating on the same level do, it is true, stand mainly in negative relations to each other while they remain independent; but even then they create a basis of common interest, not only by the method of insurance and the creation of external economies, but by the more conscious co-operation of meetings for sharing views and discussing the broad features of trade, in Institutes, Chambers of Commerce, and the like. It is inaccurate, too, in point of fact, to suppose that the method of combination is free from the worst features of independent competition; for it accentuates such practices as the rebate, the boycott, and the discriminated price. The

New Trades Combination movement, founded recently at Birmingham, in the name of fair prices and of Christianity, was a double boycott. Combination must be tested over a longer period before it can claim to have moralized industry.

In the third place, combination is opposed to independent competition, as the "artificial" to the "natural" system of organization. This is the most prevalent and fundamental antithesis of all. It is implied in it that combination has no real stability, and even no adequate justification. At the basis of all reasoning on the value of economic combination there lies, it has been said, "the typical assumption of all reformers in all ages—the conviction that economic and social conditions can, by deliberate human endeavour, be changed for the better." This assumption, the writers continue, "is often regarded as unscientific, if not as impious. Any intentional change is denounced as 'artificial'—it being apparently supposed that changes unintentionally produced are more 'natural' than others, and more likely to result in the ends we desire."[1] In support of this protest, they refer to the following remarks as typical of the philosophy of the "natural system" as it is now expounded. Writing of the Trade Union movement, Mr. Lecky says:—

"One thing may be confidently said. It is that the policy of limiting and regulating labour, which is now so popular; the policy of substituting in all industrial spheres administrative and legislative restriction for the free action of demand and supply; the policy of attempting to level fortunes, *to change by law the natural growth and distribution of wealth*, and to create a social type different from that which the *unrestricted play of natural forces would have produced*—belongs to the same order of ideas as the

[1] Webb, *Industrial Democracy*, Part II., ch. xiii., *init.*

Protectionism of the past. It is clearly akin to the old sumptuary laws, of embargoes, of trade regulations and monopolies, of feudal restrictions on property and individuals, of strict commercial protection."[1] One of these policies, he proceeds to say, leads "logically" to the others.

In reply to this attitude, the authors of *Industrial Democracy* retort that in view of modern economic evolution, "any discussion of the relation between producer and consumer, or between capitalist, brain-worker, and manual labourer, which is based on the assumption of a mutual exchange of services among freely competing individual bargainers, is, from a practical point of view, entirely obsolete. We have to work out a new economic analysis, not of any ideal state of 'natural' liberty, but of the actual facts of a world of more or less complete economic monopolies—legal monopolies, natural monopolies, monopolies arising out of exploiting the prejudices of consumers, and, last but not least, monopolies deliberately constructed by the tacit or formal combination or amalgamation of all the competing interests."[2]

This discussion is an old one, in the sense that it has been maintained in many connections since the time of Adam Smith; but it is ever new, in the sense that again and again its influence steals into and pervades modern reasoning. Those will be opposed to industrial combination who believe in *laissez faire* and mean by it individualism; those will approve who believe in the same principle, but mean by it any manifestation of individual freedom, even the freedom to merge his individuality in a larger organization. It is worth while to bring out the latent assumptions of both sides.

[1] *Democracy and Liberty*, Vol. II., p. 383. (Italics mine.)
[2] Page 688.

The opinions which have been quoted imply such lines of reasoning as the opposition of free competition to monopoly, of the "natural system" to the human control of it, the identification of the competitive with the natural system at one time, and with the independent system at another, and of public control with artifice in the bad sense of the term. It is impossible to deal with these habits of thought, and to clear our own ground, until we have come to terms with the evasive word "natural."

It has been pointed out that this word has four meanings, the confusion of which has been responsible for important fallacies in the theory of politics.[1] An event or series of events is natural if it (*a*) exists at all, (*b*) exists in the mechanical order of things, (*c*) existed originally, (*d*) ought to exist. Natural means real, mechanical, original, or ideal; we speak of the natural course of events, of natural science, of the natural or pre-social state, of a natural manner.

Now in the current use of the phrase, the "natural system of competition," especially as opposed to deliberate combination or control, there is *first*, a tacit identification of competition with independent production—production, that is, when each firm or unit stands by itself; and *second*, the independent method is supposed "natural" by a mixture of the three last meanings of the word. It is taken as an original system, an ideal system, and a system on a par with such laws as gravitation. The same term which implicitly opposes competition to combination, as the original to the supervening method, identifies the original with the ideal, the successor with the artificial, the original with the indefeasible, the successor with the vain attempt to interfere.

The source of confusion is the identification of com-

Ritchie, *Natural Right*, chs. i.–iv., especially ch. iv.

petition with independent production, to satisfy the idea of "free" competition. It must be insisted that competition belongs to any and every economic system. It has various methods of working—the independent or the combined method, or mixtures of the two. The system must not be identified with any of its methods. Industrial combination ought not to be beset with prejudices on this ground. It is a competitive method based on that foresight by which the Darwinian Law is qualified in the sphere of human activity.

It is to Adam Smith that appeal is still made against the claim of all "artificial" organization to be considered normal or representative. The "natural system of things' which is "promoted by the natural inclinations of men," that is, by the efforts of *individuals* to employ capital to the best advantage, is opposed by him to all "human institutions" which "disturb the natural course of things."[1] He proved this first by the fallacy of composition, assuming that the sum of the advantages of individuals was the advantage of their sum, a method which takes no account of the relations between individuals which it is the main aim of "human institutions" to arrange. He might have reflected too that, if a proof is formal—and his result followed "naturally, or rather necessarily"—it is valid when the units are changed. Let us write nation for individual. The advantage of the whole world ought then to be obtained when every nation is left free to pursue its own independent interest, of which it is the best judge. Smith would then have found himself defending the systems of restriction and interference he was so much concerned to write down.

If industrial combination is to be regarded as the representative method of organization under any circumstances,

[1] McCulloch's Edition, Bk. III., ch. i., pp. 168–9.

it ought to have some continuity in its evolution from other types of structure, and it ought to be due to the same evolutionary force of selective competition. The tendencies with which we have been dealing somewhat over-estimate the change which has been taking place; and this over-estimation is commonly increased because some of the aspects of competition which escape notice under the independent method are written large under combination, and are supposed to be specially due to combination. In order to correct this tendency, the analysis of this essay will begin in the structure of the representative firm, and will trace the influence of combination on the various aspects of the competing strength of such a firm. In this way the question will best decide itself as to the representative nature of combination; for it is truly representative only if it increases competing strength, as compared with the former typical organization.

Industrial evolution will bring about the survival of what is, in a sense, the "fittest" method of organization; but, as its fitness has no other proof than the fact that it has survived, no further judgment of value is passed upon it. As we have remarked already, there are other factors of competing power than productive efficiency; no sanction on the ground of national advantage is given to combination, even if it is the representative organization of a certain period and of certain circumstances. The rise of combination might still be taken to indicate that the circumstances ought to be modified.

"In the higher field of enterprise and management," writes Professor Clark, "the law of evolution works in a rapid way; and it operates sweepingly in the competition that takes place between different types of business organization. Of all the fields in which the struggle for survival is in progress, the one in which a quick and bene-

ficent outcome can most surely be counted on is that in which an assorted lot of business establishments, organized on different plans, are testing their efficiency in a competitive struggle. The stamp of assured success in such a contest puts the excellence of a type of organization beyond question."[1] This method of statement is misleading; "excellence" of a type would be assured by competition only if competition rested solely on power to render service, that is, on a cheaper supply. But it rests on many other factors, some of which are usually regarded with disapproval. The type which survives and is representative of its period owes its position to its strength, rather than to its excellence, as a competitor; on its power to take as well as on its power to give advantage.

The factors of competing strength can be arranged as follows. Firstly, there is involved what may be called the "productive efficiency" of the firm. It is of this factor that account is almost exclusively taken in the theory of pure economics; in the long run, it is supposed, only efficiency will count. Productive efficiency depends on organization; on the competence with which the actual process of transforming raw material into finished products is carried out; on the economies made in skill, time, and material. Business management is the vital question to decide on in this respect.

Second, there is the element of risk. In a complete study of productive efficiency this might claim to be included; but it is important enough to be considered apart. The internal organization of a firm is a different thing from the relations in which it sets itself to the consumer or to other firms. There may be very great efficiency in the production of goods that are not wanted. A firm,

[1] *Quarterly Journal of Economics*, Vol. VII., p. 50.

which is to be strong in respect of risk, must know how to make the risks that must be made, and that are inseparable from enterprise; how to take the risks that are given by conditions of the market over which it has no direct control; and how to bear the losses which are incidental to the less calculable fluctuations of a wide market. This is a question which depends largely on the personal qualities of those who are in command; a strong ship will be steered badly if the captain either does not know his chart and the signs of the weather, or does not inspire harmony and confidence in his crew. This factor is one of the greatest importance in respect of industrial combination, whose motive is commonly stated to be the mitigating of the market risks of independent production; for the study of combination it is quite necessary to consider this factor by itself.

Third, competing power involves bargaining strength. This largely determines the conditions on which a firm can obtain its own supplies or dispose of its own products. We exclude from consideration all bargains made by a firm with its rivals on the same industrial level with regard, for instance, to partitioning the market; bargains of this sort are usually regarded as forms of industrial combination. We take account of the relations of a firm to those from whom it buys or to whom it sells; for these affect its strength as a competitor with other firms on its own level; and it is of competing power that our analysis is being made. Bargaining is then of two forms. What is called the "higgling of the market" is a process having reference to the terms of a particular transaction, as well as to the bargaining parties alone. It affects the competing power of either firm against its rivals; but it has no direct reference to the rivals of either. On the other hand, bargaining may be of a form which extends beyond the

particular transaction or the particular parties involved; any exchange of goods is made on conditions that are determined by a wide contract, which gives their whole validity to the conditions of a particular transaction; and the contract is directly aimed at the rivals of the bargaining parties. Such are the boycott and the rebate.

Fourth, there is a factor which it seems best to describe as "resource." It includes all those forms of industrial strategy and tactics which a firm employs to enchance its competing power, but employs solely by its own exertions, and not through bargains. A firm which negotiates for a cheap supply of coal is using its bargaining strength; if it buys its own coal mine it is using a method of resource. The forms of resource are as incalculable as opportunity; the discrimination of price is, as yet, the best known of them.

With reference especially to the third and fourth factors, the question of fair price has frequently been raised; it is thought that many forms of bargaining and resource are contrary to the morality of trade. The question has become more prominent in recent times, since it has been raised in respect of international trade relations. As we have said, this question cannot be decided within the sphere of economics; the survival of the fittest guarantees only the survival of the organization which possesses and uses to the fullest extent all the factors of competing strength. Whatever maxims are laid down regarding "fair" price or trade, must be derived to a great extent from general considerations as to the purpose of economic activity.

The factors of the competing strength of a representative organization are bound up with each other. Any separation of them is provisional and ideal, in order to facilitate their study.

The purpose of the following chapters is to examine the

influence of industrial combination on each of these factors. The study of combination is thus made continuous with that of the representative firm. Our question is as to the claim of combination to be considered "representative" of the most modern industrial conditions. A combination is not always itself a firm; its compactness of structure varies between the Trust which has bought up the constituent plants, or their stock, and which is itself a firm or company, and the more or less complete agreement between firms which remain in many ways independent. We do not therefore ask whether the "representative *firm*" of the twentieth century is a combination; it is impossible to judge how fast the bonds of combination will be in the end; but we may, leaving this question open, ask what possibilities combination has of becoming the "representative *method*" of industrial enterprise.

PART I

THE FACTORS OF COMPETING STRENGTH

CHAPTER I

PRODUCTIVE EFFICIENCY

IN order to examine the influence on productive efficiency of the rise of combination, it is necessary to take a point of departure different from that which is usually chosen by the friends of this movement. They assume, as a rule, some abnormal condition of the market, produced by an excess of investment or of competition; and their defence of combination is, that it is remedial of such conditions. The difficulty which besets this method is that, when the economies realized by combination are pointed out, it is hard to say how many of them are true economies of combination as such, obtainable by any combination, and how many are relative only to the special circumstances out of which this or that combination has arisen. In this chapter, therefore, we will first suppose that combination has not been so conditioned, but that it has supervened on the normal operation of representative firms, as a further step in their organization; our conclusions can then be qualified by reference to special market conditions.

Since the firms which combine are by supposition already of representative size, the influence of combination will naturally have effect chiefly upon their relations to each other; and if the development is a normal one, we should expect to find it taking place first among firms

whose common interests have already become considerable under the independent system. Such a growth of combination, built up on a basis already prepared, would be the most convincing as to its economic significance and value.

This prepared basis is represented by the external economies of the independent method. These are the relations which are to be more closely welded, or even made internal, by combination. When the limit is reached for the internal economies of a representative establishment, the growth of efficiency depends on the external, and therefore upon other establishments; this implicit and unarranged co-operation is by combination organized and made explicit.

Of the external economies that are realizable by an individual establishment, some depend on very intimate, some on more remote relations toward other establishments. In order to indicate how these relations obtain, we may take three grades in the organization of independent production.

There are open to the individual establishment, first, those external economies which depend on the general organization of economic and social activity. Such are the means of communication, material and immaterial—transport and facilities for information—which serve to integrate the entire national market; as well as all special services, such as insurance and banking, which are worth undertaking on a certain scale of efficiency because of the activity of industrial life as a whole. If we take the hypothetical case of a single establishment in any trade, operating without rivals—what might be called an "isolated" firm—it would be on these general services that it would have to rely for external economies.[1]

Secondly, the representative firm gains those external

[1] *v.* Greene, *Corporation Finance*, p. 34.

economies which are due to the organization of its own special trade. This particular trade, for instance, may be of such national importance that special transport facilities are given to it; it will have in any case its own trade journals, its own Chambers of Commerce, or its own Institute; the mass of its demand and supply will be so great that each firm assists its rivals to obtain better terms; the labour market is worth organizing; lines of economic force become set in the direction of the requirements of that trade. These economies, together with the former, belong to what may be called "individual" as distinct from "isolated" supply.

Thirdly, an important preparatory step toward combination is made in what may be termed "collective supply." At this stage economic forces have led to a strong localization of individual firms in centres which have special advantages for production. As a result, certain economies come into existence which belong to that particular centre of that particular trade; the individual firms share, not only in an enhanced degree the economies of that trade, but to a great extent the actual instruments by which these economies are granted. Their costs of supply depend on each other in an intimate degree; they have a great many common interests, and are informally combined for many purposes. Relatively to any such centre, there are many economies which are internal, but they are external with reference to the individual establishment.

Collective supply, or group production, stands nearest to combination; and it requires further analysis here, both because, being the margin to overstep which is to combine, it indicates to the fullest the economies on which combination can operate, and because of the classification of combination which is given later.

Collective supply presupposes a wide market, with highly developed means of communication: it is because and so far as these means, of both kinds, are efficient that high specialization and localization are worth while. But given a strong integration of the whole market, the development of a centre depends on the balance of advantages and disadvantages implied in the analysis of "comparative cost." This force acts upon centres in two ways, and creates economies upon two grounds; it gives to the centre "attracting power," and also "holding power," over an industry. The former implies the economies of localization, which are specially obtainable at certain places; the latter those of centralization, obtainable at any place.

The former includes some economies that are internal, such as climate, local aptitudes, or the momentum of a more or less accidental start; but the chief of these refer to the relations in which that centre stands to the sources of raw and auxiliary materials, to the distribution of the market for consumption of its own products, to the attitude of the labour market in certain regions, to the law, to the tariff system, to social conditions, or to possible developments of any of these. Localization is based on the resultant of these component forces, all of which do not count for the same value, but vary according to the industry in point. Jevons believed that the coal supply had always a preponderating influence; but the interaction of influences can be seen by comparison or contrast of centres such as Pittsburgh, Essen, Chicago, the Manchester district, Bradford, Minneapolis, or, on a wider scale, by following the movement of national industrial supremacy from the Levant to Great Britain.[1]

[1] Vide *The American Census* of 1900, Vol. VII., ch. xxxix. p. ccx. *seq.*; Marshall, IV. x. 2; Taussig, *Quarterly Journal of Economics*, XIV., p. 143, *seq.*; Shadwell, *Industrial Efficiency*, Vol. I.

The "holding power" of a centre includes those economies which are due to grouping of establishments within it; the specially internal economies of the centre itself, and the adjustment of the general economic system to the centre. The internal economies have been expounded by Professor Marshall—the development of special skill, of supplementary and auxiliary trades, of a readily accessible labour market, and so forth. The adjustment of the general market means that lines of economic force become set in the direction of that centre; it obtains a reputation and a *clientèle* corresponding to the "good will" of an individual firm; other centres have been fixed with some regard to it; or transport routes have adapted themselves to its special needs, and this is a form of investment which does not bend easily to changing conditions, for the fixed capital of railways is not readily invested or withdrawn. Thus a "ganglion of interests" comes to converge on any great centre of supply, and this, helped by its own organic growth, acts as a defence against the first assaults of new centres, and mitigates periods of transition. Vested interests will give way in the end to economic development; but the holding power of some centres may be greater than their power to attract.[1]

As the whole national or international market widens, therefore, and collective production grows, there will be a gradual dislodgment of less favourably placed establishments in the buffer space between centres, and the latter will come into competition with each other along a line determined by the economic distance of any point on it from the nearest centres. Transport itself would make this line irregular, since economic distance varies for carriage by water as against carriage by land. Other factors of economic distance are language, nationality,

[1] Cf. E. A Ross, *Quarterly Journal*, Vol. X., p. 265, *seq.*

political sentiment, commercial habits; so that the line of competition may be broken as well as irregular.

An economic distance is not identical with spatial distance, it need not be the same both ways. This is evident even in cases of physical relation, for transport acts more easily down than up hill or stream. But social factors accentuate the difference; sentiment is not always equally strong, or equally unstable, between home countries and their colonies; the barrier of language acts more strongly from England to Germany than conversely, as our Consuls are always telling us. If we take as an example the market for an English coal centre, since the coal is freely admitted in its chief foreign markets, we find that the North of England producers are economically nearer to many continental markets than to other English centres. Their market extends some way inland at home, but reaches over the sea to the coastline of the North Sea and the Baltic, and into such German cities as can be reached by waterways. It meets the margin of the markets of the Silesian and Westphalian Cartels in Brunswick, Hanover, and Province-Saxony,[1] as well as at the chief ports. Down at the Mediterranean ports it meets the margin of the market for American centres. Such instances illustrate how the distribution of areas and the power of centres would not naturally have followed the lines laid down by national frontiers; and it was, in fact, an argument for one American tariff that although English goods could not compete in the East, they could compete in Texas, and far inland from the Mexican Gulf.[2]

Just as a too precise meaning must not be given to the idea of a circle of control from any centre, so in the case of

[1] *F. O. R.*, 1977.

[2] Cf. Vol. I., Part I., p. 193: "The ocean freights from England to Galveston and Charleston are less than the rail and ocean freights from Pittsburg to those cities."

the centre itself. How close the grouping will be depends on particular causes. It will be the closer as processes of manufacture are more continuous; in any case it will adapt itself to the most economic use of collective economies. The Bradford trade is grouped within a radius of fifteen miles from the city, though it has an international market.

When grouping takes place on this basis, prices are fixed within each group by competition, and at the margins of markets the competition of different centres meets. Prices will be lowest at the sources of supply, and will rise toward the margins by transport charges; so that, taking transport as the most important factor in economic distance, one centre is debarred from competition within the market of another by the fact that beyond the margin sale-price is falling toward the source of supply, while its own transport charge continues to rise.

It has been supposed that the area of each market is supplied by not one, but a number of establishments at the centre; and also that no single centre dominates the entire market. These assumptions are based on certain well-established economic limitations.

There is, first, for every individual firm a point of maximum economy, or lowest cost per unit, determined by all the internal and external economies of localization and centralization. This limit is of great importance in respect to the development toward combination.

The general statement is, that for some causes which are broad and universal, and for others which vary with the nature of the commodity, there is a point of maximum efficiency for the supply of any individual plant or establishment. The position was concisely put by Marshall, in the proposition that, where marketing is easy, the production is routine, and in such production a

business of moderate size realizes all the economies, internal and external, which are due to localization and concentration ; but where increasing return acts between wider limits, marketing is more difficult, for the goods are such as depend on individual tastes and fancies.

The more special causes arise from limitations to the power of machinery and management. It appears to be the case that there is a determinate mechanical unit of maximum efficiency. "When the unit becomes a certain size there is little or no economy consequent upon duplicating or multiplying the unit by another factor. That is, when the unit is as large as 1000 horse-power, the economy resulting from increasing the size of the units by simple multiplication becomes inconsiderable or disappears. The 5000 unit is five times as expensive as the 1000 unit"[1]. The limit for efficient management depends not only on the complexity of the trade relations of a large firm, which is a matter of technical training, but also on the effect of great responsibility on the coolness and integrity of the management.

As to the extent of the centre as a whole, this is limited by causes partly physical, and due to the rate of exhaustion of the resources which led to the localization of industry therein ; partly social and moral, because of the influence of large and crowded centres on the general conditions of life and work. The limitation on individual economies will by itself cause a tendency to multiplicity of establishments ; that on the general capacity of the centre will tend to scatter new establishments in an outer fringe, where they may lose some economies but avoid some losses.

Such an organization can fairly be called "collective" in regard to production ; for although each firm or establishment remains independent as to its internal

[1] *Engineering Magazine*, Vol. XX., p. 614.

affairs, yet all the firms make common use both of certain trade economies whose force is greatly increased by centralization, and of the instruments by which these are obtained at that centre. They use the same machinery of transport, and employ it conjointly for supply and distribution; the same labour market; or whatever undertakings are locally engaged in for the common good. These economies and means are external to any firm, but they unite it in positive co-operation to other firms.

We find then that, prior to combination, the cost ot production of an individual establishment depends on other establishments, in a manner which implies three variables. It is a function of the general industrial organization of the country, of the organization of a particular trade, and of the organization of a special centre for that trade. This is the basis on which combination has to operate.

These economies do not come into force because of the design of any of the firms who gain them; they come to pass as a result of the operation of self-interest. Neither will any of the firms, while these remain independent, be able or perhaps willing to develop them further, and seek to readjust them for the common good. Yet such re-adjustment may be possible if common action is designedly taken. It may require not only common action but com-munized production, since the process may imply temporary sacrifices here and there which can only be offset by pro-portionate recompense through a common interest in all the firms. It is evident, of course, that these new advan-tages might be brought about in the long run by Natural Selection, and the competition of other places; but com-bination may gain them in advance, and foresight may make the transition an easier one. Thus the external

economies of a trade or locality may be enhanced by a redistribution of the functions of individual firms, so that each of them comes to specialize in some one department of the productive process; neither private interest nor Natural Selection will realize these economies so readily or effectively as combination.

Combination will increase the force of some external economies, and will, by extending the scope of the representative organization, internalize and subject to common control many others. But it is to be expected, if this movement is normal, that it will begin from the external economies of collective supply, which are most fully prepared for development, and thereafter build up, if necessary, a combination between different groups.

The combination of firms hitherto producing collectively may therefore be termed "combination of the first order"; that of individual firms which are more widely separated, or of local combinations, "combination of the second order." The justification of this terminology lies, not only in the conception of natural development, but in the fact that the former system will better deserve the name of combination than will the latter. It implies more things that will really be done in common, and fewer that will be done merely under the same management. A refinery in California may belong to the same combination as one in New York; but even if they buy their raw supplies in a mass from one source, and so make certain economies, they will have no collective import or export, and their most immediate external economies will be obtained by the use of different instruments of supply and distribution and local organization. Their combination may mean only a partitioning of the market—a relation which is negative more than positive. There will of course be middle cases which are not easy

to classify, according as centres of collective supply are clearly or loosely defined.

Among the economies which are open to combination of either order, if normally developed, are all that are consequent on greater security and on the power of massed capital. The former is dealt with in the next chapter as an aspect of risk; the latter requires a brief explanation.

Some enterprises are so great that only a combination of capitals can undertake them. Thus it is said of the pipe-line system of the Standard Oil Trust that—

> "So long as the oil industry was divided among many small firms, oil was carried in wooden barrels. With the greater concentration of the industry special railway tracks were built for transporting the oil in tanks; but only in virtue of a gigantic combination of the interests involved would it have been possible and profitable to construct that extensive system of pipe-lines by which the Standard Oil Company now transport its oil. The same applies to the European import of paraffin oil." [1]

For the same reason chemical industries are especially open to combination; in all countries they head the list, either absolutely as to the number of combinations, or in the ratio of combined to uncombined output. The German and French chemical industries are entirely under combination. In England and Germany they head the list of combinations in number, in America in relative percentage of employees and output. The reason lies in the rapid changes of invention, and quick deterioration of fixed plant. "Concentration and the consequent massing together of capital is possibly more easily justifiable in the chemical industry than in any other, for not only are great

[1] Cassel, *Nature and Necessity of Interest*, pp. 113–115.

sums expended in research, but when new discoveries have been made further large capital sums are required to bring the new invention within reach of the consumers. Thus, for instance, the production of synthetic indigo was known long before it could be produced in a profit-yielding manner. The search after the new process of manufacture has swallowed enormous sums of money which financially weak houses could never have afforded to spend without any immediate prospect of profit." [1]

But, so far as productive efficiency alone is concerned, this is not the case for all trades, and special circumstances must decide the possibilities of economies on this basis. Thus combinations of dealers are difficult to maintain, because they take slight risk of fixed capital, and a competitor can start easily, if he can obtain only a good-will which rests largely on personal causes. The Cordage combinations had a chequered history because it was "very easy" for a rival to start. A capital of 200,000 dollars is adequate for a representative salt factory. The distilling trade is specially liable to periods of over-production, because the cost of establishing a distillery of reasonable size is slight, a distillery consuming 1500 bushels per day being on a good competitive basis. The Doscher refineries, with a capacity of 3000 barrels per day, claim to run as cheaply as the Trust with its capacity of 45,000; and this is admitted by the Trust. The Wire Nail Pool of 1895–6 was broken, because "with 10,000 dollars and six weeks' time any one can become a manufacturer of wire nails." Similar evidence was given for Tin-plate and other industries.

It is clear, again, that combination of either order may

[1] *F. O. R.*, 3445, p. 76. Cf. Marshall, p. 358; Liefmann, p. 143; *American Census* of 1900, Table XXVI., Vol. VII.; Vol. XVIII., p. 14, of the *American Commission*.

realize what have been called "economies of competition," by avoiding some of the charges for agency and advertisement in the more speculative portions of the market.

But the question of management is that upon which the productive efficiency of combination chiefly turns; economy in management cannot be reckoned only as one economy among many, for it is the condition on which depends the realizing of other possible economies. This question takes a different aspect according as the first or second order of combination is considered.

Combination of the first order is subject to the competition of other groups of producers, although it can obtain a limited degree of monopoly in its own market. The forces which maintain efficient management continue to operate in this case; and the pressure on the central management is in turn exercised on the individual establishments by the system of "comparative accounting," which is explicitly adopted by Trusts, and less explicitly by Cartels. It is thus sought to retain under combination the advantages of independent competition.

According to this method, factory is compared with factory by the central management. The managers of the separate plants are salaried, but on a sliding scale. The difficulty that invention will languish, since any manager who experimented "would take all the odium of failure and only part of the reward of success,"[1] is overcome by a special premium on invention as well as by payment on its results for a time. The competition thus fostered is often said to be of the most intense kind, even more intense than free competition, since a central management is a personal force making a searching comparison, and not an impersonal force like Natural Selection, so that exact degrees of efficiency can be measured. Thus, according to

[1] Marshall, *Quarterly Journal of Economics*, XI. 131.

an investigation of Professor Jenks, daily reports from the individual plants were sent by over forty per cent. of the cases studied; others reported weekly or monthly.[1] It is hoped that combination will thus offer a better field to business ability, and abolish the nepotism of private business.

The prospectus of the Bradford Dyers' Association asserts that between its plants a "healthy competition and rivalry" is to be encouraged; that of the Bleachers' Association is more definite, offering a "commission or percentage on the profits" of each individual branch. The American Steel and Salt Trusts lay particular emphasis on the method. "We find that by comparing the different records, or rather rubbing the records of the different departments together, we produce good results. If one man is extravagant in one particular, his attention is called to that, and he is ambitious to be number one on the list. . . . Individual effort is recognized from the President down. His salary is contingent on results; and we attempt to follow that out right along the line to the most common labourer." In the Rubber Combination payment by results has been so thorough that local managers are said to be paid more than the central superintendents. Both the members of the American Commission and the witnesses endorse the advantages thus obtained by Trusts. The witnesses "are of opinion that the opportunities for a young man are greater than ever before; there is less favouritism in a large company than in one with family interests, so that he can work his way up." The Commissioners decide that on the whole combination may offer a better field for business ability to rise.[2] The operation of this method is, of course, more

[1] *Bulletin of the Department of Labour, Washington*, 1900, p. 675.
[2] Vol. XIII., pp. xxxiii., 252–3; Vol. XIX., p. 636.

automatic and requires less stimulus, in those forms of combination which do not altogether destroy the independence of individual firms, such as Conventions and Cartels; in these cases, pressure exerted by the central management has to be a repressive rather than a subsidizing one.

Combination of this order, then, both operates on those external economies which are most ready for closer adjustment, and ensures efficiency of readaptation by maintaining competitive force within and without. Since it supervenes on collective supply, the combining firms will know each other well enough to be able to avoid much of the interference of the promoter, and they are near enough for the method of representative control to be practicable. A good deal is to be said for the view that this type of organization creates the best captains of industry. "The gains which were possible under production on a large scale could be realized only so far as competent leadership of the large operations was developed, and in this school of experience the leaders were trained for the still higher work required. It is in the *rivalry between combinations* that the supreme effort of this process is seen. Having as the head of a corporation learned, as it were, to command a brigade, the great *entrepreneur* develops the fitness to command a division or an army corps."[1]

But as combination extends its scope, and becomes of the second order, there are important changes in the aspect of productive efficiency. The external economies to be operated on are of a less intimate kind than under collective supply; there are fewer things which can really be done in common; the facilities for, and instruments of supply, production, and distribution, will be different at different centres, each of which will use its own facilities

[1] *Yale Review*, 1900, p. 364.

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for itself. Economies are, as before, realizable as regards mass of capital, agency and advertisement, and management of firms; in addition there may be important savings in "cross freights." But the actual realization of these depends on the vigilance and strength of the management, and this is liable to be affected in several ways.

In the first place, complexity is introduced into the method of comparative accounting when firms operate under perhaps widely different conditions, and do not make collective use of the same external economies of localization. Differences in the efficiency of internal organization will be less easily distinguished from differences in external facilities. The mere fact of distance will make reference, and correction, and verification difficult to operate without friction.[1] A great deal of power will therefore have to be delegated to the local managers.

But delegation of this kind has some dangers. Local managers will not like the control of a small central management, especially if they see that their own localities have special possibilities for independent enterprise; and the method of representative government is less practicable when the area of combination is very wide. The firms have probably been brought together by the promoter without knowing each other well beforehand, so that there may not be sufficient community of interest or sympathy to make delegated authority work harmoniously, under the scrutiny of a central directorate.[2] The combination is liable, too, to be burdened with charges of formation, since the absence of collective interests made each firm stand out for the best terms it could get on entering the combination.

[1] Kollmann, *Der deutsche Stahlwerks-Verband*, p. 14.
[2] *v.* Langstroth, *Railway Co-operation*, pp. 28–29.

Again, the fibre of management is apt to be weakened, as different competing centres become absorbed in a national organization; there may be a loss of initiative as competition from without becomes more remote or takes the "potential" form. The fusion of great interests yields a structure sufficiently predominant to cause inertia within it, and dispirited competition without; the directors are apt to rely upon their fighting power, on bargaining or resource, more than upon productive efficiency.

These causes are helped by the tendency toward standardization, which acts in large combinations, and somewhat restrains the individuality of different locations. This is incident to the operation of comparative accounting on a wide scale. Mass production has, of course, certain advantages, but it leads to routine if no other force holds this in check. Under combination of the second order, this check is greatly weakened. "It is impossible," said the President of one Trust, "in large organizations to give much latitude to individual desires among consumers" . . . "organization means system and system means uniformity."[1] The last American Census grants that "American manufactures tend to be limited to staple products susceptible of rapid production, in accordance with a uniform standard, at a minimum labour cost, and involving a comparatively small element of artistic skill on the part of the workman."[2] When the Westphalian Coal Cartel granted export bounties, it required a collective claim to be made by whole branches of industry; upon which it is reported that "the Bergish Iron Industry has lodged a complaint that this system of a collective claim by unions is useless as far as they are concerned. The number of its various establishments is

[1] Vol. XIII., pp. 254, 263. [2] Vol. VII., p. clv.

very considerable, but the basis upon which they work differs in nearly every case. The formation of a union for the above purpose could only proceed upon the understanding that no establishment could introduce any innovation without the consent of his competitors, who would be members of the same union."[1] It is evident that routine production of this kind, on a very wide scale, would not make for productive efficiency. It is not surprising, therefore, to find that Professor Hadley notes how in America the very large organizations are approaching the position of public services in respect of management and routine.[2]

It is itself, perhaps, liable to be put down to the common routine of argument when this objection is made to large corporations; and some authors protest against the assumption that men will only work with their full strength to secure their private interests, but not to serve the public when these are secured.[3] We may therefore take an illustration of the influence of external upon internal competition, which is not the less apt because it is homely. The method of comparative accounting may be compared to the inter-collegiate athletic rivalry at Oxford and Cambridge, the force of external competition to the inter-University contests. Can any one doubt that it is the latter which mainly supports the former; or that the standard of athletics at Cambridge would decline if there were no such place as Oxford?

The second order of combination ought therefore to be cautiously developed out of the first; and not by sudden strokes in the market, unless there are exceptional circumstances. It may benefit a firm in California very little, and may hamper it more, that it is under the same

[1] *F. O. R.*, 3042, p. 26. [2] *Scribner's*, Vol. XXVI., p. 610.
[3] Cf. Hobhouse, *Combination Movement*, pp. 71–2 (1st Edn.).

management as a firm in Ohio. The Sugar Trust had, in 1900, refineries in eight States of the Union, the Steel and Wire Company in ten, the Tin-plate Combination in five. The comment of the receiver of the Whisky Trust on such organization was that "there is absolutely no use in combining where they are scattered all over the country. If combinations are formed it is to get a corner on the market and better somebody's fortune. There is no practical advantage in it; not a bit. For instance, the distilling people had distilleries in Peoria, Nebraska, Pekin, St. Louis, Cincinnati, over across the river in Kentucky, and in a dozen different places. There was absolutely no necessity for combining. It was only to control the market, limit the output, and commit extortion."[1]

As combination takes the wider form, therefore, the handicap on the management becomes greater. We may return to the military metaphor. "Just as in an army there are many who can fill the position of captain, few who can fill that of colonel, and almost none who are competent to be generals in command—so in industrial enterprise there are many men who can manage 1000 dollars, few who can manage a million, and next to none who can manage fifty millions. The mere work of centralized administration puts a tax upon the brains of men who are accustomed to a smaller range of duties, which very few find themselves able to bear. This is the greatest bar to the success of Trusts."[2]

Some of these difficulties would be lessened it com-

[1] Vol. I., Part II., p. 238. Cf. *Commercial and Financial Chronicle*, Vol. LXXI. (1900), pp. 991–3. Two Trusts had failed to keep their separate plants in control. "One cannot avoid asking if, after all, the same or similar conditions will not be found to exist in other trades as well."

[2] Hadley, *Scribner's*, XXVI., p. 607. Cf. Flux, *Economic Principles*, pp. 55–6.

bination of the second order, when it came about for defence or by the sympathetic spread of the combination movement, took the slighter form of the convention or limiting agreement, rather than that of the fusion of interests. The restriction on local or individual enterprise would thereby be rendered less dangerous. And this in fact has commonly been the case, especially in Germany, where the local Cartels are usually syndicated, while those on a national scale are rather agreements between Syndicates; while international combinations are usually simple agreements to divide the market.

But we have thus far assumed that the development of combination is a process arising out of normal conditions of production on a large scale. This, however, is not the basis on which the advocates of this development usually argue. Combination is usually presented rather as an industrial medicine, to heal the fever of the independent system; its origin is in abnormal market conditions, its justification in the phenomenon of "*excessive* competition," "over-production," or the recurrence of industrial crises.

It is evident that such causes cannot be accepted without further analysis; their very statement implies that they are not self-explaining, and that it remains to inquire why competition is excessive, or production overdone. But, taking these abnormal conditions as at any rate proximate causes of combination, we must ask what qualification they render necessary as regards the productive efficiency of the organizations which arise out of them.

Combination of either order, which is based on the excesses of previous competition, presupposes an investment of capital too great for the market to maintain at a remunerative price. "Over-production," at any time or place, is relative to the profits of capital. The excess of

investment may be due either to an increase in the amount or power of capital, the market remaining the same, or not expanding in proportion; or to a contraction of the market, the investment remaining the same, or not being withdrawable at the same rate. Thus we may have either "initial" over-investment, as when trade is stimulated by a tariff; or again "resultant," as when a tariff contracts the foreign market, or technical progress of any kind renders each existing firm more powerful.

In these circumstances, firms which are nearly equal in strength, or which can draw on financial reserves, will prefer to combine rather than fight a long and losing battle for supremacy. Combination so motived will clearly realize whatever economies belong normally to combination of either order; these will be economies prospectively regarded, and will give it strength against new competition. But other economies will also be claimed which are of a different kind; economies whose aspect is toward the previous over-capitalization of the market, and which have been called "retrospective" economies. The chief of these is "running full." That is to say, the combination, which by hypothesis cannot profitably run all its firms full, will shut down some of them rather than operate them all partially. Thereby gains are made which are due to decreasing cost. In some cases these are very great. The Sugar Trust closed all but six of its twenty-three plants, the Whisky Trust all but twelve out of eighty. In less abnormal cases the gain is reckoned at from four to twenty per cent.

The value of these "retrospective" economies can be gauged only by translating them into prospective terms. A combination has to maintain itself against competitors, actual or potential, who are not concerned in its retrospective economies, but fight it on its present merits.

It is clear that some interest on the excessive investment must be a charge on the future prices of the combination; had the competitive battle been fought out, there would have remained probably a lesser charge, to make good the losses of the struggle, and the exhaustion of reserves. The extent of the burden which remains on a combination depends on the policy adopted in the process of "promotion."

In the most favourable circumstances, the excessive plants are taken over at their real present value, and are then sold; we suppose, that is, no "bonus payments." The charge on future prices is therefore, so far, the interest on the difference. This difference, however, is increased first, if the selling value of the plants is their value at forced sale, while their buying price was probably as generous as possible; and second, because they cannot be sold for their old use, since thereby competition would be created with the combination, and also since there has probably been depression in the industry. They are therefore dismantled and sold for some purpose for which they were not originally intended; so that, on the most favourable assumption, the difference on which interest has to be paid may be considerable. The normal economies of combination must be great enough to counterbalance this initial burden if the combination is to have "prospective" competitive advantages. And it is clear that, the greater the retrospective economies which can be claimed on the ground of shutting down and running full, the greater the handicap under which prospective competition must be fought; for independent producers can make a clear start, so far as productive efficiency is concerned, and are not burdened with charges for dead plant. In the case where the Trust buys up, not the plants, but a majority of the shares of the companies operated upon, it is able to lessen

the amount of over-capitalization due to this cause. For if it buys fifty-one per cent. of the shares of a company, and secures the winding up of the company, and the sale of its plant after dismantling, then it will lose and over-capitalize the new business by the difference between the buying price of shares and their value when the plant goes on the market at forced sale; but it loses this difference per share on only a part of the whole capital, compelling the other shareholders to divide the loss.

There is, again, the case in which neither plant nor stock is bought up, but payments are made in order to stop the activity of certain firms or persons. The Wall-paper Combination of 1880 is said to have paid one firm 20,000 dollars per annum for this purpose.[1] The Official Receiver of the Whisky Trust asserted that "they threw away property that cost them hundreds of thousands of dollars, merely to eliminate it; they paid men for staying out of the trade; they paid rent on this abandoned land right along from year to year, nearly 100,000 dollars a year. I have got on the roll here 100,000 approximately a year for rent for nothing. They rented the places where the distilleries were, in order to put them out of the way."[2]

The weight of the whole burden thus created may be measured by such facts as these. Of the 80 establishments brought into the Whisky Trust, 33 were idle when incorporated; of 37 brought into the Tin-plate Combination 15 were at the time "on the verge of failure." The capacity of the Steel Trust in 1902 for ingots was 48 per cent. over the 1901 output, and that output was in a boom year, exceeding by 30 per cent. the highest previous record. For finished products its total capacity was "equal to the total actual production of finished steel in

[1] *Political Science Quarterly*, II. 68.
[2] Vol. I., Part II., pp. 238–9.

the whole of Europe, and nearly 60 per cent. more than the greatest actual annual output of finished steel hitherto reached in the United States."[1] The general result is shown in the Census of 1900. Of 2216 plants (including integrated plants) in the Trusts in 1900, 176 were idle, or nearly 8 per cent. The total number of idle establishments in the United States is returned at 3864 in that year, or only ·7 per cent. of all establishments. The percentages of capital represented by idle plants were, for Trusts, an estimate of 2·5, and for the whole country about 1.[2]

There are, in practice, further initial charges due to the activity of the promoter in forming the Trust. This is especially the case under combination of the second order, where the parties are perhaps little acquainted with each other, and seek to get the best terms they can for themselves from the promoter. To the over-capitalization which always rests to some extent on combination formed under abnormal conditions, there is usually added, therefore, an excess ot over-capitalization. In the case of Trusts this is seen at their formation, under the Cartels it develops during their life, since some firms in the union buy up others and shut them down. What is usually called the over-capitalization of Trusts means increase of over-capitalization : the addition to ordinary over-capitalization of another over-capitalization, or the purchase of excessive plant at an excessive valuation.

This excess is of course often paid for, not by the borrowing of money, but by the issue of stock of the new corporation; Trusts deal with bonds only to a small extent, and so far they lessen the danger of their over-capitalization. But the effect on their productive efficiency is the same, if they are to pay normal dividends on their

[1] *Report of British Commission*, 1902, pp. 311–12.
[2] Census of 1900, Vol. VII., Tables I., XXII., XXX.

stock. And as a rule, when a plant is thus taken over, the Trust has to cover its real present value with preferred stock, which is a first charge on its profits; it is the excess issue of common stock which, in general, represents the over-capitalization on which, for the credit of the new company, a dividend must also be sought. To charge this either on prices or on reserves is to weaken the productive efficiency of the combination; to charge it on wages will lead to disputes; not to pay it at all is to strengthen the influences which dissolve combinations, especially of the second order.

The capitalization of Trusts, for example, tends to be about double the real value of the capital, reckoning this at the time of combination. We can find this result in two ways, either by examining the practice of the promoter in individual cases, or by watching general results. In particular cases the practice is to issue preferred stock up to the real value of the assets, and then, according to what appears to be the etiquette of fashionable finance, to grant an equal amount of common stock as a bonus. "The most frequent plan has been to give one share of preferred stock and one share of common for each 100 dollars of cash valuation, it being understood that the preferred represented the cash value substantially, though in many cases there was in this cash value a large amount allowed for good-will in the proper sense of the word, whereas the common stock was supposed to stand for good-will in the rather broad sense—that is as representing the speculative element or the hopes of its future success." [1] There have been deviations, according as individual vendors must be bargained with on advantageous or disadvantageous terms—that is, according to the value of their authority as adherents of the Trust. Thus the Carnegie

[1] Vol. XVIII., p. 23.

Company had to be dealt with specially in the formation of the Steel Trust, its stock being bought at a premium of 50 per cent. with the usual bonus added upon this for a large part of it. In some cases also there has been an endeavour to be more precise; thus the Rubber Company capitalized earnings on a 7 per cent. basis, and the Salt Company on a 20 per cent. basis, instead of merely doubling the value of assets; and these earnings, again, may be either retrospective or prospective, the latter implying monopoly power, or allowance for the "ill-will" of buyers against a monopoly. But as a rule the guiding principle is to keep down preferred to the valuation of assets, giving them the place of bonds, and to issue common share for share.[1]

This is borne out by the following general table, which shows also the comparative neglect of bond issues by combinations that are so promoted.

"Industrial combinations: capitalization, 1900:—

	Authorized.	Issued.
Total	$3,619,039,200	$3,093,095,868
Bonds	270,127,250	216,412,759
Preferred Stock	1,259,540,900	1,066,525,963
Common Stock .	2,089,371,050	1,810,157,146."

"There are also certain intangible assets of which the census figures take no cognizance, such as patents, trade-marks, franchises, good-will, etc., whose value is included in the above capitalization. If allowance be made for this qualification and for the others that have been explained, the true value of the capital invested in active and idle plants, $1,461,631,743, may be compared with the bonds and capital stock issued, amounting to $3,093,095,868, of which it formed 47·3 per cent., exceeding the amount

[1] Vol. XIII., pp. ix.–xv.

of bonds and preferred stock issued, $1,282,938,722, by $178,693,021."[1]

Organizations which are formed under such disabilities can hardly expect to realize the hope that they have "come to stay," unless they are able to set off against their initial burdens overwhelming advantages in bargaining and strategic power, in patents, or other forms of limited monopoly; and their life is apt to be a long-drawn series of industrial manœuvres, with increasing charges for agency and all forms of invigilation over their rivals, and with intensified trade and personal risks from within and without, as their position shelters and encourages competition, tests the competence and integrity of their government, and alienates public opinion.

Our conclusion in respect of productive efficiency is, then, that combination can always operate upon the external economies of individualized production, so as to readjust these to the common advantage; that its most natural development is from the basis of collective supply; that, if it extends its scope, its normal economies may best be preserved if the wider organization is of slighter structure than the local one. Combination arising out of abnormal market conditions is specially handicapped, and must have special advantages, in production or otherwise, if it is to maintain itself.

[1] American Census of 1900, Vol. VII., Table XXIII.

CHAPTER II

RISK

The inherent economies of industrial combination are the common justification of its stability and its national advantage. But risk is the subjective condition of its origin at any particular time or place; it is the pressure of risk which first arouses producers to the possibilities of another method of organization. If the method of independent production has been followed by habit, and believed in by long use, or if the method of combination has had attached to it some tacit censure or prejudice even in the minds of producers, it is the intensity of risk that breaks the habit and modifies the attitude. The new method, when tried, reveals unexpected possibilities, or confirms the expectations which deference to opinion had feared to put to the test. It is in some such spirit as this that we must interpret the wavering of the argument for combination between normal economy and abnormal market conditions.

In the preceding chapter we have made abstraction of the risks of the market, and productive efficiency has been studied on the assumption that there were no uncertainties or fluctuations in the outside market. The vital forces of an organism are one thing; the chances of life and death in the environment, though they operate only through those forces, are still distinguishable as a separate problem.

Although risk returns upon productive efficiency, it is sufficiently important to be considered in itself. The strongest ship will not make the best voyage if it does not know the currents and the weather, or draws too much to take the safest routes.

What is risked is capital. Risk is always relative to an investment. This investment may either be destroyed, or not adequately maintained by the demand of the market, or not easily transferable from one use to another. The capital risked may be either material or immaterial, fixed or circulating. Neither the material capital represented by ships, factories, and raw stuffs, nor the immaterial represented by business connection, has a guaranteed period of life or extent of activity.

The risks of the representative firm are either static or dynamic. The former are defined as those risks which occur within a market which is regarded for a time as the market of certain producers; there are no dislocations of trade in general, which lead to a rearrangement of the markets of the world. Static risks are incidental to the relations of the producers within such an area to each other or to the consumer. Dynamic risks, on the other hand, depend upon new inventions, new methods of organization, new trade routes, shiftings of labour and capital, or changes in social wants. These change the centre of gravity of national or international trade, and cause the phenomena of a period of transition and fluctuation. The distinction is relative and provisional; it is guided by the facts of the case. Combination which is compactly organized for a definite market insures itself by treaty or by slighter agreement against the competition which general changes might bring about.[1]

Risk must be both made and taken. The firm must

[1] *v.* J. B. Clark, *Quarterly Journal*, V. 290.

both have and be able to meet enterprise. The risks which need not have been made are due to gambling or incompetence. The risks which are properly made are inherent in the nature of modern industry. The greatest risk of all would consist in hesitancy to undertake them. Some risks are given, and depend on physical conditions. For any one industry the risks which result from the state of other industries are practically given.

The representative organization must be a good risk-maker, must maintain, that is, enterprise, foresight, and knowledge of the market. It must be a good risk-taker, by either of the methods of prevention, like a lightning-rod or an integrated supply of its own materials; or suppression, like a fire-extinguisher or a long contract. Lastly, it must be a good loss-bearer, in case of inevitable depression, by the use of the method of compensation, through reserve strength, or alternative activities.[1]

We have to consider then the following questions. First, what are the risks to which the independent representative firm is subjected in a given market? Second, of what forms of defence can it avail itself while remaining independent? Third, how does combination affect these risks? And when these questions have been applied also to dynamic risks, it remains to ask, fourthly—what new risks are introduced by combination itself?

It is fair to exclude from consideration certain risks which would usually be classed as non-economic, since they are not based on any essential aspects of supply and demand, and since their incidence is not affected by industrial organization. They depend on such unforeseen events as fire or shipwreck or political complications. In

[1] This is the classification of Herrman, *Theorie der Versicherung.* Cf., Haynes, "Risk as an Economic Factor," in the *Quarterly Journal*, IX. 421.

various ways, these are met by the method of actuarial insurance, which implies a tacit combination between firms operating independently. They are not properly "risks of the market." Insurance against them is an external economy which is not necessarily more advantageous to small than to large organizations. The same amount of plant represents a less utility to a large than to a less large firm; but so does the same cost of insurance.

The proper risk of the market cannot be met in this way; it depends too much on personal factors and the invisible capital of trade connection. A producer could not be very strenuous if he were insured against failure or depression by an outside agency. The risk of the market has two factors. One of them is due to the variability of demand, and all changes in the attitude of the consumer toward any product. His demand for it may fluctuate, he may not adapt himself to a supply produced in anticipation of his demand, or he may consume goods for which a bad debt is created. This risk is an economic one; short of production to order, no form of organization can be free from it, though some forms can mitigate it. Although, for any one industry, it is a risk from the side of demand rather than of supply, it is indirectly a risk of supply and competition, through the influence of other products on the consumer. The other factor is directly due to competition within any given industry. For although, to the consumer, if other things are the same, it is indifferent whether the supply comes from one firm or another, this is a vital matter to the individual firm. It has to reckon with the trade policies of rivals who do their best to conceal them; to produce within its own capacity in order to prevent over-supply, and yet to ensure that this restriction is not taken advantage of by other producers; to watch the manœuvres of advertising and agency, and meet by concession the

dangers of boycotting or restrictive contracts. Market risk implies a calculation in which the variables are singularly unstable, and become, with the widening of the market, less capable of handling as a whole.

The risk factor which is derived from the side of the consumer depends on what has been called the nature of "undertaking" as opposed to "overtaking" a supply. The former implies anticipation of demand, the latter implies a guaranteed demand. It is high organization of transport and manufacture which have caused the latter to give way to the former. Such security as formerly existed in narrow markets and strict commercial regulation remains now only in a few cases. Battleships at least are not produced "for the market." In the case of co-operative trading there is still some residue of a guaranteed market, but largely because the goods are of a routine description. There are, further, differences in the intensity of this element of risk. Some trades require very little fixed capital, such as the trade of the dealer or agent on commission. In these cases, the capital that is risked by anticipation of demand is chiefly the circulating capital embodied in stocks of goods; on the other hand, and for the same reason, the risks of competition are then unusually great. The risk of undertaking is more intense for manufactured goods, since capital is invested and specialized for long periods, and there is the double risk of a fixed and a circulating investment; on the other hand, competition arises less easily and with longer warning.

The composite risk of fixed and circulating capitals is the usual case. An example of it is found in the statement that education has created an incongruence between producers and the mass of consumers. "The change in the consumption of some commodities is entirely dependent upon the increase in the taste and intelligence of the

masses. . . . It is undeniable that the culture of the manual labourer of the world has not advanced concurrently in recent years with the increased and cheapened production of such articles. Many things have been showered upon these classes which they do not know how to use, and do not feel that they need, and for which therefore they can create no market."[1] In "consumption goods," when the producer faces the final consumer, this risk is doubtless very great; it is in their case that advertisement is most costly. The risk is mitigated for producers of goods which are sold to be used or worked up by further producers—"production goods," as they are called. In their case, a qualitative change in demand takes place more readily, even if the demand of the final consumer changes only in quantity. The buyer of machinery is always on the lookout for the newest appliances, either to meet a quantitatively increasing demand, or to save costs on the existing demand. He is a competitor as well as a consumer. The industries which stand back from the final consumer are therefore, in this respect at least, less affected; the consumers to whom they sell are not the unready consumers of the above quotation, but the wide-awake undertakers of a further production.

No method of industrial organization will standardize the consumer. His demand for even such routine goods as food and clothing changes both quantitatively and qualitatively by accidents of time, place, and value of money. Even a whole industry must face these chances, and provide whatever defences may lessen their influence. But the individual producer in any industry must consider the further variable of competition.

The influence of this second factor is due, it has been

[1] Wells, *Recent Economic Changes*, p. 77; cf. Clark, *Quarterly Journal*, VII., pp. 52–3.

said, to the less direct operation of Natural Selection between than within firms.[1] The agents of production within firms are consciously measured against each other, and their work apportioned by the supervision of business managers; but who guards the guardians? Each measures himself against all the others; but he does not know their policies and dispositions, and these change even while he reckons. The absence of centralization of control is the source of risk from the producers' side of the case.

There is, on this account, a continual liability to "over-production." There are dangers in the use of this term, but it would be pedantic to ban it altogether. It is capital which is risked, and over-production is relative to the profits of capital, not to the capacity of the consumer. There is scarcely any quantity which the consumer will not take at some price; but, by excess of supply of particular goods, at particular times and places, the price may fall below full cost of production per unit. The absence of central regulation of the producers as a body causes the periodic recurrence of this phenomenon, especially under conditions of decreasing cost. The individual producer who makes a bid for a greater custom by extending his output is liable, under increasing cost, to be undersold, if his rivals do not follow; but under decreasing cost he undersells. The market may be able to bear the increment of supply caused by himself; but not an equivalent increment from all his rivals, if they retaliate by his own means, or if even they communicate panic to each other. This is the road which leads to crises. The risks of decreasing cost were great already, since the method implies a large fixed investment.

Producers working under this method are liable, through their ignorance and distrust of each other, to communicate

[1] Marshall, *Economics of Industry*, p. 321.

panic quite out of proportion to the conditions of the market. Thus it is said that "the iron market is so sensitive that an offer of 25,000 or 30,000 tons of pig-iron or steel in markets like Glasgow and Middlesbrough at five or ten shillings below current prices would completely demoralize the market and almost create a panic."[1] Such surpluses are continually being spilled over the borders of defined markets. Their total amount at any time may be almost negligible in comparison with the output of the market they are thrown into. But they may appear formidable when compared with the output of the producer who, for local or other reasons, is most directly affected. If he takes alarm and cuts his price, he affects his neighbours; and so the panic may spread on a most insufficient basis of fact.

Under the stress of this twofold risk, secret and corrupt practices may be employed to hold the market—commissions, rebates, or boycotts wherever obtainable. "The element of speculation enters into manufacture at every pore—size of market, competitors, and price, are all unknown. Every improvement in communication and every application of labour-saving machinery adds to the difficulty and delicacy of trade calculations."[2] "There is some ground for saying that the lack of a well co-ordinated system of control makes industry resemble a mob rather than an army."[3] Combination, or some forms of Communism, appear at once to suggest themselves as remedies; there are some risks they can eliminate by prevention, others they can mitigate by suppression. And so Dr. Liefmann says that "Combination may be defined as the

[1] Jeans, in *British Industries*, p. 35 ; cf. Wells, *Recent Economic Changes*, p. 78.
[2] Hobson, *Problems of Poverty*, p. 34.
[3] Jones, *Crises*, p. 48.

product of the growing divergence between risk of capital and profit of capital."[1]

But it remains to ask whether the independent method does not have safeguards of its own. This is our second question. In some ways it is perhaps too good a risk-maker; has it any means of suppression or compensation which enable it to be a good risk-taker and loss-bearer?

Concomitantly with the high organization which creates market risk there have been developed several forms of defence. The expression "risk of the market" is apt to carry the implication of an open market with casual purchasers, of a market in the old and narrow sense of the term. It is needless to point out that this conception is out of date; modern economics are not based on such an idea.[2] The modern "market" involves a high development of the elements of contract and qualified monopoly, even while producers remain independent.

The growth of a monopoly element in all business is the chief safeguard of the individual firm. We exclude from this the protection afforded by patents and trade-marks. There is left a qualified monopoly based on good-will, on contract, on the form of organization.

The "good-will" of a firm has a sale price, and may be important enough to predominate in the total sale price. It implies a certain business connection or *clientèle,* based on the favour or inertia of a certain portion of the demand, on preoccupation of the field, on local considerations, on local or national prejudice, on the reputation of a great name, on various chances and accidents. It is divided not sharply, but by continuous gradation, from the neutral consumer, or those who exercise an "ill-will."

[1] *Unternehmer-Verbände*, pp. 44, 51.
[2] *v.* Cunningham, *Presidential Address to the British Association, Section F*, 1905.

As the contract element in trade develops, the seller obtains a temporary monopoly of the custom of certain clients, and this is an important insurance against the risks of the less certain consumers. The period of contract in many trades is for one or two years; and it is evident how this lessens the influence of panic. A surplus casually thrown into a market has to take its chance with running contracts, and would only be of great influence if it affected their renewal by coming at a time of maturing.

The organization of Joint Stock has also helped to build up the defence of qualified monopoly. Large consuming firms are often to a great extent the stock-holders of producing firms; they not only support them by their own custom, but become agents for their trade, and help to extend its scope. They also insure themselves to some extent, since the influences which bear on them adversely as consumers of materials, will in some degree be made up by their interest in the producing firm. These relations between firms on different levels eliminate friction, and the wastes that are based on ignorance and distrust, and they are often developed into an integration of the whole process of production.

These three aspects of the monopoly element of industry bring it about that the individual firm is not solely dependent on the chances of an open market. It has close relations with parts of the market, and these suppress as by a buffer the incidence of risk. It has its stronghold and its outworks as well as its field of battle. This is its strength as a risk-taker.

With regard to loss-bearing, there is the fact that the growth of factory organization has in some cases weakened the barriers between different trades, so that factories can be turned with diminished loss from one use to another. This has been called the "lateral aggregation of pro-

cesses."[1] "A watch factory, with those who worked in it, could be converted without any overwhelming loss into a sewing-machine factory; almost the only condition would be that in the new factory no one should be put to work which required a higher order of general intelligence than that to which he was already accustomed."[2]

Again, the supply of by-products may be on a great scale as compared with that of the main product; and to possess alternative lines of activity is to create a reserve of strength against depression in respect of any one of them.

We come now to our third question. What is the effect of combination on these risks of the market?

It is generally evident that combination, so far as it is effective, provides as between firms that conscious and centralized operation of Natural Selection which otherwise holds only within the firm. It supplies all that is included in the idea of common control. It centralizes information regarding both the market in general and the producers themselves; and lessens the co-efficient of error in forming estimates. It apportions, by this means, the supply of any one firm to the probable demand, or the demand to the supply, or both of these; it makes, for the sake of organization, provisional divisions of the market, so that each firm has its own business to mind. It can communicate inventions, and make arrangements beforehand for the changes which these will bring about. It can support special intelligence agencies for distant markets. And when unforeseen changes take place it can prevent the panic and demoralization among producing firms, which spread infectiously from a weak or nervous producer throughout the market, and lead to a prostration altogether unjustified by the original occasion of alarm.

[1] I think by Mr. Hobson.
[2] Marshall, *Principles*, IV., ix., 4., pp. 337–8.

These advantages would be greater if combination were preventive rather than remedial of industrial distress; if it anticipated instead of following upon the failure of the independent method. And Liefmann believes that this will be more and more the case, at any rate with Cartels; that they will be formed "directly" and not "indirectly." But independent firms, especially those which are of long standing, place a high value on independence, and are prone, in the competitive struggle, to "look ever on the sunnier side of doubt"; and although combination has led to further combination, this process has been rather a defensive movement than the taking of a lesson. The most hopeful sign that risk will be anticipated rather than remedied by combination is in the tendency of Cartels to be reconstituted at the end of their term, even if this does not occur at a period of depression.

The risks which combination is thus able by its nature to eliminate or suppress are those which come mainly from the side of the producers. Their relations to each other are altered so as to diminish misunderstanding and overlapping, panic, and excess of supply. The risks which come from the side of the consumer are less easy to modify.

Combination has in its nature certain advantages in respect of enterprise or risk-making. It can more easily make experiments with goods or machinery since it has in general a large reserve of producing capacity; and it can devote a single establishment to the production of special goods. We have already seen also that the mass of its capital enables it to undertake fundamental changes in the method of supply, ventures which only an aggregation of capitals renders possible, as in the case of the pipe-line system.

Against these possibilities there must be set the fact,

which is admitted, that great organizations are apt to devote themselves to routine methods and products; either because their organization requires it, and comparative accounting is simplified by it, or because of mere lack of initiative. The latter danger is especially great for combination of the second order.

Further, all forms of combination are not equally well placed for the undertaking of such new enterprises as the pipe-lines. The structure of a Cartel, or of a Pool, or of a mere agreement, does not imply the massing together of capitals. When individuality is suppressed, as in the case of Trusts, there are the greatest capital resources for such schemes. But this is also the case where initiative is apt to have been most weakened by the nature of the combination.

With regard to the taking of risk, it is clear that combination enhances the value of the methods of defence that were open to the individual firm. The monopoly element is emphasized both by the concentration of plants, and because a combination is able to enforce long contracts with clauses which guard itself. It imposes "strike clauses," "raw material clauses," or "finished goods clauses"; thereby reserving the power to modify long contracts if the price of its own material or of the purchaser's products is increased. In some cases the connection based on "good-will" is lessened, and public opinion favours the independent producer; but on the whole the monopoly element is strengthened. Combination is able also to suppress the risk of bad debts; it can and does enforce statutory payments. In general, combination lessens risk so far as it increases bargaining power.

It is difficult as yet to estimate the advantage of combination as a loss-bearer. It is better able to bear

any loss that is given in amount; and it can weather a local depression more easily for that reason. It is less easy to say how it compares as regards a general depression. Combination has still to be tested in a period of general inactivity. It would be able to meet such a position by closing down a few plants, and running full with the others; this implies a smaller loss than a general restriction of output. Its reserve is not necessarily greater in proportion to its total risk than the reserve of an independent firm. The management of enormous interests in a falling market may affect the foresight and coolness of the directors. In the year 1900, according to the American Census, 64 per cent. of the combinations having common stock, and 33 per cent. of those having preferred, paid no dividends on these stocks.[1]

We come now to consider the dynamic risks of industry. Trade routes may change, so as to disturb the existing arrangement of markets, and affect severely the value of fixed capital; new inventions may increase the economic power of the establishments which exist, so that some become superfluous while others fight at closer quarters; or there may be sudden shiftings of capital and labour to more attractive occupations.

It may be possible to mitigate the last of these tendencies by bold experiments whose aim is to head off the flight of capital and labour; thus concessions may be made in price, quality, facility of distribution, or conditions of work and wages; for such bold strokes combination is best placed. In such circumstances at least it will act quickly and for a great part of an industry. But if the transition is due to a strong current of economic tendency, the question is one of loss-bearing, and this is indeterminate.

[1] *v.* Table XXIX., Vol. VII.

Such a case has the following opposed aspects. It can be and has been maintained that when dynamic forces are changing the centres of gravity for any industry, a combination is protected by its agreements with other centres of production, through which the market is divided into provinces or selling areas. That is to say, that combination within a defined market is protected by combination of the second order, which is apt to be slight in structure, and merely prevents invasions and inroads. Thus it has been maintained that international combination, which is often only a bargain, may render the protection of tariffs superfluous; and although such agreements would probably be revised if great changes took place in transport or invention, they would at any rate serve to prevent sudden clashing of interests at a time of transition.

On the other hand, such agreements may stand in the way of a proper adaptability to the new conditions; especially if they include producers in a great number of markets, like the International Cartel for steel rails. They may offer a buffer against change; and the advantage may be with the individual firms which sell out and seek new locations. This would especially be the case with the quick development of a large and new country. The firms will bear the loss of rapid sale and transference of business, but will gain the high return on capital that is in a new field at once; while combination, burdened with limiting agreements, may lack this flexibility, and maintain for a longer time plant that is half idle; or it may endeavour to overcome the risk of a period of change by a closer union with combinations in other markets, a method which still leaves it with idle plant, of which it rids itself with greater hesitation, since, being a combination, it dreads to create an opening for competition. "The manufacturer who abandons an entire plant dis-

advantageously located, in favour of a superior new location, possesses in a high degree that industrial courage which has done much to bring America to the front of manufacturing nations."[1]

The judgment with which combination is directed can alone determine with what comparative loss or gain it meets the risks of the market. It must be sufficient here to indicate the possibilities. Combination is on its trial as yet, and must justify itself. We must finally ask our fourth question—What new risks of the market are introduced by combination, which were not there before?

In the first place, there is what may be called the "pure risk of combination." A great many eggs are in one basket. There is a danger-point in the concentration of resources. Distribution of these is itself an insurance. This consideration has several aspects. Although a great organization operates with power while it retains its industrial health, yet it may have the delicacy under ailment of the highly trained athlete. If the safeguards should fail to act effectively, if there happens to be one incompetent or corrupt manager or director, or if a combination is caught napping with an inadequate reserve, the market fluctuation will be the more severe as the organization which breaks down is greater. The risk is similar to that of a town or nation which stakes its industrial prosperity mainly upon one industry; consider, for instance, the position of Greece in respect to the cultivation of currants. High organization itself implies great sensitiveness. The Bank of England, says Mr. Bagehot, is "by far the greatest combination of economic power, organization, *and delicacy*, the world has ever seen." The basis of this is partly psychological; the weight of the responsibility affects

[1] Census of 1900, Vol. VII., chap. xviii., sect. 3.

coolness and integrity; it is also partly financial, since those who lend or sell to, or buy from, a combination may prefer a more distributed risk and a better elasticity of demand or supply. "All good insurance companies guard against too great localization of their risks."[1] The new German Steel Cartel is conscious of the special risk created by its great concentration of resources, and has stipulated that "in the event of new home competition arising, the production of which amounts to at least 5 per cent. of the combined quantities of the A and B products of the Syndicate, the dissolution of the Syndicate may be resolved upon."[2] This clause may fairly be described as nervous.

Secondly, there is inherent in every alliance the risk that the compact will not be kept. The firm which enters a combination places itself at the mercy, to a great extent, of its former and perhaps future rivals. This is a special risk of terminable combinations; but it is not absent even from "Fusions." The conditions which existed when the alliance was formed may change, locally or generally, so that the combination comes to be less useful to one firm or manager than to another; prices are cut, secret rebates are given, the firm or manager begins to covet independence again. The whole equilibrium comes to be unstable. Against this risk, combination adopts the insurance of a system of initial payments and forfeits. This may not be the best defence. The attachment of a definite penalty to any act may be held to sanction the act provided the penalty is paid; it may be worth while to break some clause of a contract and pay the penalty. When there is no forfeit, such action is a breach of honour. There is some defence, again, in the fact that combination cuts off the individual firm from its special *clientèle* and destroys

[1] J. Haynes, *Quarterly Journal*, IX. 447.
[2] *F. O. R.*, 3287, p. 34; Kollmann, *op. cit.*, p. 20.

its good-will. "There is no doubt that it would be the tendency of the Steel Syndicate, as it is the tendency of all Syndicates, and one of the sources of power they have over their members, to cut off the direct connection between the syndicated works and their customers."[1] A redistribution of functions between firms would especially help this tendency; and this takes place in both Cartels and Trusts. But the pressure of initiative against regulation may be too strong; the manager of a Trust firm, or a Cartel firm, begins to prepare for a new start. "It was distinctly stated by men who had themselves been leading officers in combinations that, all things equal, they would prefer the position of the independent competitor instead of that of the manager of a combination."[2] "More than one industrial combination is witnessing the actual departure from its management of men who built up the properties from which the main consolidation was formed."[3] When defections of this kind take place, the resultant competition will be the more intense because goodwill has been lost, and the firms have been able under combination to spy upon each other.

Thirdly, combination by its nature is specially provocative of opposition and "ill-will." Even when it is developed out of normal conditions, and is moderate in its policy, those who are dependent on it will distrust the velvet glove. This is especially the case if the combination is of compact structure, and not merely of the form of a convention; just as an international *entente* is tolerated, while an alliance provokes a counter-demonstration. The opposition of public opinion is itself of great importance; it drove the Standard Oil Trust out of an American city whose gas supply the Trust aimed at controlling.

[1] *F. O. R.*, 3221, p. 76. [2] Vol. XIII., p. xxxii.
[3] *Financial and Commercial Chronicle*, Vol. LXX., p. 984.

It is granted that, in America, "sugar and other Trusts are in much odium," while in Germany dealers advertise their coal as "independent of the Kontor," and have given British coal a preference on this ground.[1] When public opinion becomes strong enough it reflects itself in the law; and however futile combination laws may be, they are at least harassing, and their influence is cumulative, since their enaction affects again public opinion. Again, the State may remove many of the artificial conditions of success from the combination, by operating on tariffs, creating fiscal industries, or even subsidizing independent competition. All these methods have been proposed or adopted. Short of the final consumer, other producers who have relations with a combination tend to organize for defence; either by lateral combination between themselves, or by vertical "integration" of various processes under one control. The former of these lessens the bargaining power of the original combination; the latter steals its market, since its customers produce its product for themselves. All the evidence points to the conclusion that this policy of "integration" is a defensive, not an original and spontaneous one. Its significance is subordinate to that of lateral combination. But its tendency is antagonistic to that of lateral combination, especially of the Cartel or terminable order; the demoralizing effect of integration on Cartels has often been observed; for it is clear that firms within a Cartel can be bought up by consuming firms outside, so that the Cartel ceases to have any reason of existence, and has only a residual product to sell on the open market.[2] Again, the opposition may come from new

[1] Bolen, *Trusts and the Tariff*, p. 144; *F. O. R.*, 3287, pp. 23–4, and 3445, p. 74.

[2] *F. O. R.*, 3221, pp. 62–7; 3287, p. 24; 3445, pp. 20–1, 69–70, 78–80.

competition in the combination's own industry; such new enterprise may rest on the expectation of public favour, on public spirit, or on knowledge that the combination is overloaded with capital and cannot stand a long price war. Liefmann acknowledges that the Cartels have sheltered new competition; the Steel Cartel dreads the same result; the Steel Trust has experienced it. "In every part of the United States new plants are entering the lists to compete against the Steel Co-operation, and the capacity of the private plants opposed to it to-day is probably considerably greater than it was at the time it was founded, although that was only February 1901."[1] This is in spite of an enormous excess of producing capacity in the Trust.[2]

Lastly, combination is in danger of being compelled to accumulate risk. For if the methods of defence which are adopted against it limit its immediate buying or selling market, it can free itself only by undertaking an "integration" of its own. It may integrate either forward, toward the final consumer, or backward, toward its raw material; the former is the more essential, and the more difficult. In either case, the risks of one industry are heaped upon the special risks of combination in another; and the whole structure is liable to be unwieldy and inorganic.

No general statement is possible to the effect that combination increases or lessens the risk of the market. The facts are too complex for such summary treatment. It has been sought to indicate by what measures the balance of risk is to be estimated in each particular case.

[1] *Report of British Steel Association*, 1902, p. 5.
[2] *Ibid.*, pp. 311-12.

CHAPTER III

BARGAINING STRENGTH

UNDER a system of perfect competition the bargaining strength of an individual firm will not enable it to introduce into the market circumstances peculiarly favourable to itself; it will enable it only to ensure for itself the terms which any of its rivals are obtaining. That is to say, that under this system bargaining and competition are two aspects of the same process—since perfect competition gives the power of re-contract, and the use of this power in turn establishes the equations of perfect competition.

But since the introduction into the market of qualified or virtual monopoly, at any place or time, brings at that time or place indeterminateness into the result of bargaining; and since, as we have seen, there is always some degree of monopoly even under competitive conditions, it is clear that, even short of industrial combination, the problem of bargaining becomes important, and that the aspects of bargaining under combination are rather a development than a new start.

The forms of bargaining are twofold. There is first the "higgling of the market," by which the buyer or the seller endeavours to obtain for himself on that particular transaction the best terms possible, but in which each has to recognize the other's right of re-contract and alternative,

neither having imposed on the other conditions which go beyond their own particular transaction; and there is bargaining within the terms of a wider contract, the particular transaction obtaining its right to observance and its precise terms from the terms of a general agreement, by which, for example, one party may restrict its right of re-contract, either in return for some concession, or under the stress of some compulsion. The higgling of the market concerns only the parties themselves, and their terms of mutual purchase or sale; but bargaining within a wider contract is aimed at third parties, its purpose being to lessen their competing power by lessening their bargaining power—that is, by limiting their power of re-contract or alternative.

Bargaining power, it has been said, lies always with the buyer, as against the seller, if there is open competition in the market; and the advantage of the buyer is cumulative as we approach the final consumer of goods. Thus from the production of raw materials to the sale by retailers of finished goods the bargaining advantage is always with the buyer, and is increasingly effective. "At each link in the chain of bargainings the superiority in 'freedom' is so overwhelmingly on the side of the buyer that the seller feels only constraint. This freedom of the purchaser increases with every stage away from the actual production, until it culminates in the anarchic irresponsibility of the private customer. . . . The impulse for cheapness, of which the consumer is the unconscious source, grows in strength as it is transmitted from one stage of bargaining to another, until at last, with all its accumulated weight, it settles like an incubus on the isolated workman's means of subsistence." "*It is highly significant that it is always the seller who bribes, never the buyer.*" [1]

[1] Webb, *Industrial Democracy*, pp. 673–4, and 673, note.

This theory appears paradoxical; it would give the conclusion that the persons whose bargaining strength is normally greatest are those who do not bargain at all—the final consumers of goods, or the general mass of the people. They are the least capable of organization, and it would be surprising if the advantage lay with the policy of passivity. Nor would this theory explain the development of co-operative and consumers' associations, whose aim is to prevent various forms of exploitation. That it is "the seller who bribes" and not the buyer is no more surprising than that it is the seller who advertises his goods, not the buyer his demand; for at each stage of the productive process every undertaker of risk is both buyer and seller, who is responsible for the production and marketing of one kind of goods, and assumes that the competitive process determines the market price for other kinds in which he is interested. His function is mainly to undertake the further process of a whole enterprise of production; but as soon as he suspects that competition does not work freely at other levels, he will begin to bargain backward as well as forward, since he can no longer take it for granted that he obtains equal treatment with his rivals. It is the same competitive process in which he is entangled as buyer and as seller; what ground is there for believing that it aids him in the former capacity, and embarrasses him in the latter? Enterprise belongs to him as producer, as responsible for a further step toward the consumer; here he openly and evidently takes risk and competes; how does he benefit because those who sell to him do the same? In fact, the complete process of production is not well represented as a line from the first producer to the last consumer; rather it is a circular or re-entrant process, the last consumer—the working-man—being also the original and indispensable producer.

There is, again, the theory, based on mathematical analysis, that bargaining advantage lies on the side of the few as against the many. "The capitalists who have present goods for sale are relatively few; the proletarians who must buy them are innumerable. In the market for present goods, then, a majority of buyers (who find themselves compelled to buy) stands opposite a minority of sellers, and this is a relation which obviously is profoundly favourable to the sellers and unfavourable to the buyers."[1] This also is the result of Professor Edgeworth's analysis. In the "general case" he finds that "combination tends to introduce or increase indeterminateness; and the final settlements thereby added are more favourable to the combiners than the final settlements previously existing. Combiners *stand to gain* in this sense."[2]

The relative fewness of the parties on either side, whether or not reached by combination, is doubtless that determinant of bargaining strength which emerges under abstraction of particular conditions and circumstances which are supposed equal. Were it, under real conditions, the sole or predominant aspect of the question, we should expect that bargaining strength would be in favour of the buyer between the stages of the production of raw material and that of finished goods; and that thereafter, as the distributing process commenced, it would be in favour of the seller right down to the final purchase by the ultimate consumer. In the centre of the position would stand, in general, the producer of finished goods, gaining a twofold bargaining advantage; the whole process being focussed in him from either side. But under real conditions, relative fewness tends to introduce elements

[1] Böhm-Bawerk, *Positive Theory* (1891), p. 360. Quoted by Webb, *loc. cit.* The words bracketed refer to the special case of labour. If "obviously" it can be generalized.

[2] *Mathematical Psychics*, p. 43.

which are more psychological than economic, though they can scarcely be called accidental to an economic analysis. It has been abundantly proved throughout the recent evidence on industrial combination that the force of competition is never so intense as in the rivalry of a few great organizations in the same market, which are fighting with and against strong tendencies of decreasing cost, and for the special reward of a limited monopoly. Such intensity of competition destroys what would otherwise be a position of great strategic power for each of them; they will, in order to impede each other, make concessions to the firms on either side of them, or hold their prices abnormally low for long periods of time. We must therefore recognize that, as between a wide distribution of producers on a certain level and a narrow limitation of them short of monopoly, there is a position of neither too great nor too small numbers where bargaining strength will be greatest, so far as number determines that strength. They must not be too many to be played off against each other, nor so few that monopoly-hunger, or even the risk of high organization, leads to an aggressive and unscrupulous war.

No doubt, the relative fewness of the parties on either side must be distinguished from the same result when brought about by combination; since in the latter case a great percentage of the operating capacity comes under one control. But even so, no strict law can be laid down. As has been pointed out, even a slight residual supply offers danger to a combination, in that it allows a certain amount of waiting power, as well as offers a certain competition. If the residual supply is combined also, we may have the competition of two combinations, like the Sugar Trust and the Arbuckles; if it is not, all its capacity is likely to go on the market without restriction. It must,

however, be granted that relative fewness, where one of the parties is a great combination, will enhance the bargaining position of that combination; but this may result in methods which are to the detriment of the independent rivals of the combination; so that fewness is not an advantage *simpliciter*, but an advantage to one of the few.

But no formula of one variable will suffice to determine where bargaining strength lies; it is a strength which shows itself not simply in a view of the long period, but also in the give and take of short periods, and in the power to avail oneself of temporary opportunities either given or made. Although, therefore, some of the elements which enter into it are present over long periods, others vary with times, places, and circumstances, and represent short-period advantages.

Firstly, then, there is the element of *alternative*, the power of re-contract, or the absence of this power. This is logically antecedent to other conditions, since it determines whether the parties must make the best of each other, or can go beyond each other. It is clear that it depends on the degree to which the capacity of supply or demand is under a single control; or that to which, in dealing with individual firms, local considerations diminish the alternative for any one party or set of parties. These considerations in turn may be natural and given, such as the distance from which an alternative supply must be obtained; or more artificial, as in any case of protection by patent or otherwise, or any reason of sentiment or inertia which makes the transference of custom difficult or slow.

The question of alternative may arise also as to the *interpretation* of contracts already made. Thus, when a long contract is running, the sellers may insist on

concessions which force the letter of the contract in an unexpected way, this power being open to use if the market is at any time above the contract price, and if the other parties have based their own long contracts on the contract now in question.

Secondly, *waiting power*, which is really a secondary form of alternative—the alternative of diminishing the consumption of certain goods for a time. This depends, positively, upon reserve—either of capital funds, which combination may greatly enhance; or of raw material already obtained and held in stock; or of finished goods stocked and ready for sale, which may indeed be enhanced in price so as to make waiting positively remunerative, a fact which has caused strikes to be connived at; or of other means of production, as in the case of a firm which produces more than one staple commodity, and can devote the profits of either line to maintain the other in depression. This last is probably the most powerful form of reserve in relation to any one commodity. It is a tertiary aspect of alternative—the alternative of selling not somewhere else but something else; and it is more useful the more the commodities are independent of each other. Negatively, waiting power is affected by fixed charges which must be paid, or other losses incurred, in the meanwhile; interest on capital in plant or in stocks eats holes in the reserve. Business connection is often impaired by waiting, especially if it depends largely, as in the case of dealers, on personal relations; on the other hand, dealers have comparatively little fixed capital.

Thirdly, the foregoing relations must not only hold good, they must be known to hold good; and bargaining strength depends on this knowledge. For the want of it, a firm may give up the struggle just when on the point of succeeding; it may have failed to gauge the waiting

power of the other party, or the alternatives which the power of delay was about to open up elsewhere. The publicity which is now given to the affairs of companies, either by law or voluntarily, lessens differences in bargaining strength due to this cause; but full information would imply in addition some approximate measure of trade profits, and of those internal relations of an organization which bear upon its power or nervous ability in waiting. Combination is usually accompanied by a demand for greater publicity in certain respects; individual firms can manœuvre with greater secrecy, both for that reason and because their size does not attract special notice. On the other hand, a combination can afford to adopt methods of close invigilation on even the most detailed transactions of a rival. Sometimes, also, publicity regarding the affairs of a combination—its reserve, its integration of other processes, or its alliances—suffices by itself to prevent the higgling process being carried far, and this has been indicated, on moral grounds, as one of the general advantages of the system.[1]

Fourthly, the position of an organization in the scale of production will affect its bargaining strength. As has been said, this position is not to be taken as coincident with the necks and narrows of an entire process of supply; but at some distance on either side of these. The position will probably vary with different industries, since all do not show the greatest degree of concentration at the same stage of the entire process of supply.

Lastly, when these other elements are in nearly an equal balance, the mere desire or ability to use them will have to be reckoned with. Some organizations are more elastic and adaptable than others, more persistent in pressing short-period advantages, more wide-awake as regards

[1] *Manual for Co-operators* (1881), pp. 20-1.

the elements of information, or more influenced by considerations of industrial morality.

It may be said on the whole that combination will lessen the alternative of opponents, increase waiting power, develop the ability to obtain and use intelligence agencies, and intensify the desire and ability of industrial strategy against buyers or sellers; and so far it enhances bargaining strength. On the other hand, it may intensify on its own level a competition which throws away bargaining advantage by concessions to secure custom; its risks may make it cautious as regards aggressive policies; its special publicity may either help or hinder it; but public prejudice against very large organizations may draw special attention to bargaining methods when employed by a combination which are disregarded in the case of individual firms.

Under individualized production, the balance of these elements of bargaining strength will determine which of the parties can encroach, and how far, upon the surplus advantages of the other; there will be maximum and minimum points between which price can oscillate, but beyond which it will not go. Even when competition acts with a great degree of freedom the "market price" is less a fixed point than a locus; the demand and supply curves are lines having a certain breadth, and not purely "mathematical" lines. But as combination develops, bargaining advantage begins to show itself in the exaction of concessions which go beyond the oscillation of the price index; the scope of the transaction becomes extended, one party throwing some of its risks upon the other, and compelling the latter to mortgage its custom for some period of time, or to some extent of its demand.

Thus a combination may be able to compel its customers not only to lengthen the period of their contract, but to

contract at a "fixed" or averaged price, thereby rendering the position of the combination secure against a market fluctuation, the risk of which is transferred to the buyer. This, for example, was the case in the well-known instance of the Westphalian Coke Cartel in 1900; when the market for iron goods had begun to fall in 1901–2, ironmasters were still compelled to take delivery of specified monthly quantities of coke at a given price. The Syndicate, which imposed this condition under the threat of no supply at all, was strong enough further to protect itself by the "clause de hausse," so that if the iron market had gone up, the contract price would have followed it; there was no "clause de baisse," the risk being therefore unequally distributed. In some cases Syndicates have been further protected by "clauses de grêve."[1] The method of the fixed price may be, and has been, also applied so that a combination compels a purchaser to take delivery of a certain minimum quantity as a condition of any dealing at all, the quantity under the Westphalian Coal Cartel being 6000 tons per annum, which severely handicapped consumers' associations. It is possible that in this way a combination can abstract a great part of the consumers' surplus, the average price being fixed so that the product of that price and the minimum quantity is nearly equal to the total utility of the goods to the purchaser, and his point of indifference is approached to; the same is true of the relation of a combination to the producer of its own raw supplies. Again, the buyer from a combination may be compelled to be an "evener" of the various qualities of goods it supplies, and so to take off the shoulders of the combination the risks due to the

[1] *v.* Sayous, pp. 118, 123, and *passim;* Walker, *Monopolistic Combinations in the German Coal Industry*, p. 274 ; *F. O. R.*, 3221, p. 65, shows that concessions are now mutual.

operation of plants of different efficiencies; the buyer can only obtain certain qualities if he takes up other qualities also.[1] The buyer may, further, be subjected to a discrimination of price of a most arbitrary and interfering kind; he is charged a different price according to the use which he proposes to make of certain quantities of the same goods; his varying surpluses are attacked by varying prices.[2] Or, finally, when sales are made to dealers, not to consumers, they may have to submit to a definite limitation of their profit per cent., as well as of the areas of the market in which they are allowed to sell.[3]

The elements of bargaining power already enumerated are common to independent firms and to combinations; and the higgling of the market is practised in both systems, especially with the growth of the long contract. But certain forms of bargaining are more or less peculiar to combined production; although depending on the same factors, they could only succeed when at least one of the parties had a great control over the supply of or demand for a commodity. In addition, only to a large combination, or a limited monopoly, would the methods we are about to discuss readily suggest themselves; it is the risk of combination which is here the motive—the magnitude of the interests that are threatened by competition.

The forms of bargaining which we now discuss differ from the higgling of the market in that they do not concern solely the two bargaining parties; their whole *raison d'être* is their external aspect toward third parties who are to be affected by them. When the terms of the bargain are explicit, this aspect shows itself; but often they are not explicit, the consent of either party being

[1] 3221, p. 64; cf. *Political Science Quarterly*, XII. 248, and p. 160 below.

[2] 3445, p. 73–4.

[3] 3221, p. 64; 3445, 73–6; Walker, *op. cit.*, 276–7 and 280–2.

given under a tacit understanding, especially when an open contract would provoke the law.

Such bargains are, regarded most generally, boycotts; they prevent the access of third parties to the market, or impede their operations therein. They do not permit the criterion of efficiency to operate freely. Classification of them is to a certain extent possible; if we take public expediency as our basis, there is a distinction between bargains of this kind made in regard to goods that are privately produced and liable to substitution, and goods which are supplied by "public service bodies" of some kind. In the latter case, a bargain or an understanding or influence which operates like a boycott is an industrial weapon of exceptional power, because it cuts the lines of communication of a competitor; in the former it is not so dangerous, since substitution acts more strongly.

Let us consider first the operation and conditions of the boycott with regard to classes of transferable goods.

The single boycott, as it may be called, has two forms; either "you must buy only from us," or "you must sell only to us." In these two cases it is general or unqualified; but it may also be qualified, and that in two ways, with regard either to persons or to goods. Thus "you must not buy from certain classes of producers," or "you must not buy except from us certain classes of goods"; and again, "you must not sell to certain classes of buyers" or "must not sell except to us certain classes of goods." And finally, of the forms of the single boycott, those in which the combination is the seller are further qualified by the condition, "you must not re-sell."

The single boycott can succeed under conditions which are easily determined. The consumer is faced with the option of buying all or none from the combination. He will turn to the independent producers, whose price at

present follows that of the combination, and whose output is not restricted; that is to say, they are placing on the market, what the combination has reckoned with, all that they can produce at that price. But if the supply follows the law of increasing cost, further pressure on the independents will raise their price, while the combination price will fall by the abstraction of demand; the buyer will therefore be at a double disadvantage. When supply follows the law of decreasing cost, the problem is more difficult. The transference of demand may at first lower the independent price, and the combination price will have to fall with it; for if the latter restricts its output further, an equilibrium will not be reached without a great transference of demand to the outsiders. But the pressure of the transference on the limited capacity of the independents will bring their price up again; and there will be an equilibrium after a certain movement of demand. Some consumers may of course prefer to buy at a slight premium from independents; thus when a Cartel claims that its prices are lower than those of independents or of fiscal industries, this requires some analysis of its bargaining conditions. But again, the transference of demand will not be a continuous process under the single boycott, as the above reasoning implies; the demand can only be transferred in large blocks, say of 10,000 units at a time, since the combination's condition is "all or none"; so that the actual equilibrium may be at a price which is higher for the combination than for outsiders, and the boycott succeeds. Further, the meshes of bargaining are widespread, so that those who buy from the rivals of one combination may find themselves boycotted by other combinations as to their selling market; and this is commonly enough the case. The Westphalian Coal Cartel "has resolved to grant export bounties from April 1, 1904,

exclusively in agreement with the Steel Syndicate and the two Pig-Iron Syndicates. This is tantamount to saying that those works which manufacture the same class of goods as the members of the Steel Syndicate, but which decline to join the latter, will receive no more export bounties after April 1, 1904."[1] Those who prefer to buy outside the combination may be willing to take this risk; since, by sales at a distance, they may overcome it, and their profits may not be reduced more by freights than by combination prices; or they may buy from a distance.[2]

When the combination is the buyer, similar results follow. The seller will seek an equivalent producer's surplus from independent consumers, and will obtain it for a smaller supply if the combination has beaten the price down; but the residual demand is limited in capacity, and, since it is non-syndicated, is prevented from expanding by the boycotts to which it is itself liable.

The qualified single boycott can be treated in the same way; so can the consideration as regards re-selling. The purpose of the latter condition is twofold; it is necessary for the maintenance of the "zone system" of prices,[3] and also for the information of the combination as to the direction and extent of market demand. Where it is difficult to enforce this clause, the combination becomes its own distributing agent, dispensing with the wholesaler entirely; as is the case with the largest combinations. It is clear that when prices are discriminated according to more or less contested areas of the market, the policy

[1] *F. O. R.*, 3153, p. 41; cf. 3445, p. 80: "A glaring incident brought home the autocracy of the (Coal) Syndicate, for it refused to supply a prominent ironmaster because he was not a member of the Iron Syndicate, first with coal at all, and afterwards with coal at such a price that he would still be able to compete with his productions."

[2] *F. O. R.*, 3221, p. 67; 3287, p. 24; 3445, p. 74.

[3] *v.* page 205.

would fail if merchants bought in the cheaper field and undersold the combination with its own goods in the dearer; this being one of the chief causes of the dissolution of the famous Wire Nail Pool in America in 1895–6.

Again, the single boycott may depend not on compulsion but on a sharing of the gain realized thereby for one party; it is bought for a price. Thus, under the Wire Nail Pool, it is said that, "so far as possible outside owners of nail machines were hired to keep them idle, and makers of machines were hired to refuse orders for them from persons outside the association. For a year it was very difficult to buy a machine, and while the association lasted it was never easy."[1]

The following clauses from the contract of the Westphalian Coal Cartel on its reconstitution in 1903 exemplify summarily the single boycott and its qualifications:—

"The contracts made with foundries included the provision that the coal purchased must be used for own consumption, and the private consumption of the workmen of such foundries, but must under no circumstances be sold. The contract with coal merchants included the provisions that the merchants must not sell to iron and steel foundries, railway or gas companies without leave from the syndicate; that they must under no condition sell to brick or lime burners; that they must not buy from non-syndicated mines within the Ruhr district (otherwise the price of each ton bought from the syndicate was raised by 50 pf.)."[2]

"As far as the dealers' purchases are concerned they are by fines prevented from buying coal from any other source than the Rhenish-Westphalian Coal Syndicate; as for the

[1] Ripley, *Trusts, Pools, and Corporations*, p. 52.
[2] *F. O. R.*, 3221, p. 64.

dealers' sales, the profits which they are allowed to take are limited, and the area within which they are allowed to sell is closely circumscribed. The local dealer having been deprived of all initiative, it is no longer of importance to him to select according to his discretion a certain moment which he may have deemed favourable for his purchase." [1]

We come now to the double boycott. Its effect is to create a close market between the contracting parties. Its form is—" if you will buy only from us, we will sell only to you." Its natural result in the end is the development of an integration; but, while the boycott remains as a contract, its operation differs in important respects from that of an integration. The German Sugar Cartel, for instance, remained as a contract of this form between the refiners' syndicate and that of the producers of raw sugar. Some "community of interest" will probably be arranged between the parties, either by overlapping directorates, or because some of the firms are both buyers and sellers, as in the above case. It is clear that such an agreement could only be made between large organizations.

We must assume that community of interest is strong enough to prevent the supply firm from restricting its output against the consuming firm (or organization of firms); on the other hand, we may not assume that the former will produce below cost; for there is still, short of a complete fusion of interests, a degree of independence which will bar the consideration of "total benefit," or the pooling of profits.

In order that this bargain may be profitable to both parties, the sum of the producer's and consumer's surpluses must not be lessened as compared with free conditions; any immediate loss incurred on either side in

[1] *F. O. R.*, 3445, p. 73.

this respect must be made good by economies due to the security or organization of a close market.

The increase or decrease of surplus on either side must be estimated in the first place statically, by the immediate effect of the bargain; and second, dynamically, according to the effect of the bargain on the competing power of the purchasing organization; for this affects both the final surplus of the purchaser, and his power to make good a loss of surplus to the seller, by various commissions and rebates.

The effect of such bargains is most easily analyzed by supposing them to be made in a previously open market which included both the bargaining organizations. The price in this market may be called the "open price." The bargain makes possible two variations from this price. The price within the boycott, the "inside price," will vary because the supply of one party has to be readjusted to the demand of the other, and this will cause either an expansion or contraction of the supply. The variation of the "inside" from the "open" price affects the competing power of the buyer, and therefore his final surplus. But the "outside" price will also vary from the "open" price; for if the seller in the boycott sold more at the "open" price than the buyer purchased, the residue having been sold to other buyers, then the bargain takes from the open market more supply than demand, and leaves more demand than supply at the "open" price. According to the law of supply this will cause the "outside" price either to rise above or fall below the "open" price, and so to vary from the "inside" price. Such is the general nature of the problem.

Let us consider the chief cases, calling the producing firm in the boycott A, and the consuming firm B. The product of A is some kind of raw material, of B some kind of finished goods. First, suppose that A produces accord-

ing to increasing cost. Then there are two cases. Either A's output under open conditions was greater or less than B's consumption. If it was greater, the formation of the boycott takes from the open market more supply than demand, leaving more demand than supply, so that the "outside" price goes up; on the other hand the "inside" price falls, since A's supply must contract to B's demand. As a producer of finished goods, therefore, B has an advantage, so that his trade will expand, and he will take more from A in raw materials, while other producers of raw materials are selling less to the rivals of B. The "inside" price of raw materials thus rises, and the "outside" price falls, till there is equilibrium again, the boycott having stolen some of the trade in finished goods. Here the boycott succeeds. But if, in the other case, A's output was less than B's demand, the boycott fails. For it takes more demand than supply from the open market, leaving more supply than demand, so that at first the "outside" price falls; but the "inside" price at first rises, since A's output must expand to meet B's demand. B is therefore at a competing disadvantage, and his demand for A's product will fall off, while that of his rivals will increase, till the "inside" price falls and the "outside" price rises towards equilibrium again.[1]

[1] The cases of increasing cost can be diagrammatically illustrated as follows:—SP is the composite supply under open conditions, OS the open price. WQ is B's demand curve, VR A's supply curve. In Fig. 1, A's output SR was greater than B's demand SQ. The boycott lowers the inside price to P_1. The

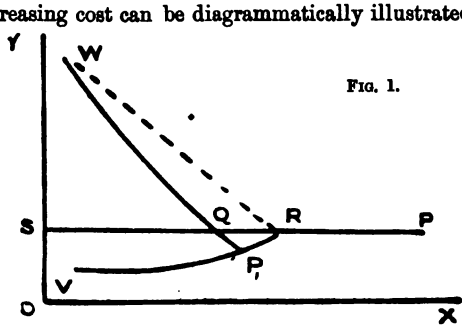

Fig. 1.

It is more difficult to discover the chances of success when the law of supply for A's product is decreasing cost. Suppose again, in the first case, that A's supply under open conditions was greater than B's demand. Then he must contract his output to meet B, and the direct effect is an increase in B's costs for materials. And as more supply than demand has been taken from the general market, leaving more demand than supply, the outside supply will at first expand at a falling price. The final result depends on the elasticity of the supply that is outside the boycott. If it is very elastic, B may be driven out of the market altogether; if it is very inelastic, increasing cost will come into play under the pressure of demand. The probability is that the boycott will not succeed. In the second case, B's demand was greater than A's supply. In the boycott, the latter expands to meet the former at a falling price, and the outside price at first goes up by contraction of residual supply to

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outside price rises, since QP, the residual demand, is greater than RP, the residual supply. Hence the loss of surplus to A (P_1QR) will be made good, for B's demand will increase, since he will gain, in finished goods, trade roughly represented in raw materials by QR. The total surplus will then have increased within the boycott by WQR. The boycott succeeds. In Fig. 2, B's demand under open conditions SQ was greater than A's supply SR. The inside price rises at first to P_1. The outside price must fall, since the residual supply RP>QP the residual demand. Hence B loses trade in finished goods, and his demand contracts toward R.

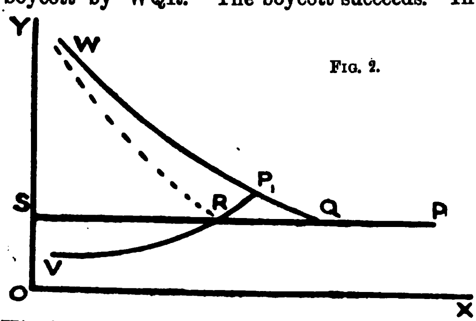

Fig. 2.

His rivals take the trade in finished goods, represented in raw materials by RQ, and their price of materials rises, as that of the boycott falls, toward OS. The boycott has lost a surplus, from B's side, of WRQ.

demand. The boycott will increase its trade in finished goods to an extent which depends on relative elasticity of supply of raw materials and finished goods, as compared with the outside market. The equilibrium is somewhat indeterminate, but probably the boycott will succeed.[1]

The long contract, the single boycott, and the double boycott, are steps in a process by which, in the relations between firms on different levels, the time-market, or the market for credit, is extended, and the logical outcome of

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[1] Under decreasing cost, surpluses have to be represented by "particular expenses" curves (*v.* Marshall, p. 521). There are also difficulties in regard to composite supply. The appended diagrams are provisional, and serve the limited purpose of determining probabilities of success. In Fig. 3, V_1RS is A's surplus under free conditions. If WQ and VR do not cut above SP, they do not cut in stable equilibrium except for a great and speculative increase of A's output which practically bars further analysis. If they cut at P_1 the boycott will probably fail, unless P_1 is very little above SP and the residual capacity is slight. In Fig. 4, the total surplus of A and B is greatly increased and the outside price goes above SP, since RP, the residual supply, is greater than QP, the residual demand. But increasing cost may soon come into play as regards A's output, while his rival producers of raw materials may fight him by a considerable increase of output which will demoralize the market. This depends on relative capacities. In the figure, the boycott will probably succeed.

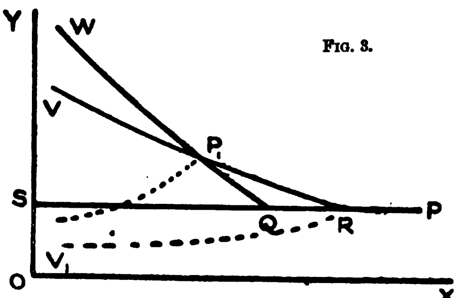

FIG. 3.

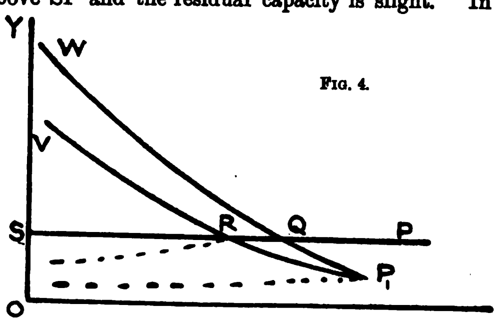

FIG. 4.

this process is integration. But, when this step is taken, the firms are fused together, and bargaining ceases; integration belongs to another aspect of competing strength, and the analysis of the double boycott does not apply to it without important qualifications.

The bargains dealt with thus far have direct reference to the supply of and demand for transferable goods, and the means of obtaining advantages by contract with their producers or sellers. But the bargain is a more formidable instrument when it is employed in respect of services with regard to which the principle of substitution acts less freely, though they are fundamental to any production at all. The aim of the bargains we now deal with is to strike at the lines of communication, so to speak, of a rival producer—at his credit, his transport, his good-will, his freedom to undertake an enterprise at all. It is through the banks, the railways, the Press, or even the Legislature, that adverse influence is brought to bear on him.

There is abundant evidence that, in some countries, the relation of banking-houses to industrial enterprise is closer than in England, and close enough in the case of combination to be a danger to the independent producer. English bankers appear to be more conservative, maintaining the distinction between banking proper and financing, and leaving the latter to firms which make it their special purpose. The report of the American Commission asserts that the tendency of banking-houses to undertake financing is more common on the Continent than in America; and recent official records show that it is common in Germany; yet there is good evidence also that such tacit alliances are frequent in America itself. It is, of course, possible for an individual producer whose credit market is impeded to borrow abroad, or in another

district; but credit is affected by distance, and suspects those who cannot borrow near home. Thus the last American Census gives a "local supply of capital" as an important condition of localization.[1]

Thus Professor Jenks reported in 1900 that: "In many cases in both Germany and Austria the chief promoters both of large corporations and of these combinations among business men are bankers whereas in the United States the promoters are much less frequently of that profession. As is well known, it is a common custom in Continental Europe for the banks to pay 2 or 3 per cent. or more on deposit. It is often difficult for the banks to make regular loans which will yield them a sufficient net revenue above this interest to make business profitable. In consequence, it is natural for them to look about for other means of investing their money; and the result is that they become in many cases the holders of stocks in industrial enterprises to a very great extent; often even controlling large manufacturing establishments and themselves electing the directors."[2]

This has been borne out by subsequent evidence. The development of the Cartels has led to a sympathetic combination movement among the banks, and to close alliances between the two. Thus in 1903 it is reported that "the most interesting fusion of banking establishments during the year was that of the Dresden Bank and the Schaaffhausen Bank-Verein. . . . Their combined capital far exceeds that of any similar establishment in Germany. . . . Both banks together will have at their disposal a capital of 284 million marks. It was rumoured that this combine was due to the events which are taking place in the industrial circles of Rhenish Prussia, the

[1] Vol. VII., p. ccxi.
[2] *Industrial Commission*, Vol. XVIII., p. 103.

Schaaffhausen Verein being in close touch with the most important syndicates there, so much so that it has been called the 'Cartel' Bank. Possibly large quantities of capital will be required to carry out effectively the latest schemes of the larger syndicates, and the fusion may have been brought about by a desire to be ready when need arises."[1] Again, a report for 1904, asserts that "the closeness of this connection has already been proved at the formation of the Steel Cartel, for the banks there forced the important Phœnix works to join the combination, though the directorate of the Phœnix had decided to remain outside the Syndicate. The combination, on the other hand, forced the banks to an increase of their capital, which was as a rule achieved by combination."[2] The disappearance in this way of leading private banks "constitutes a real loss to industry at large, for they offer many valuable advantages to the individual merchant, more especially in the granting of credit due to a more general intercourse."[2] Sometimes, in Germany, this tacit alliance shows itself in the actual control of a Syndicate by banking interests, as in the Cellulose Cartel; sometimes it implies that it is the syndicated, as against non-syndicated, individual firms which gain the special advantage of this connection.[3]

The same danger has been realized in America. "The directors and chief owners of many of the more important banks are not primarily bankers. Their chief interests are in railroads and in the larger industries of the country—coal, iron, oil, coffee, sugar, and the like. Banks are important to them not as a source of profit from dividends,

[1] *F. O. R.*, 3221, pp. 38–9.
[2] *F. O. R.*, 3445, pp. 21, 75. Cf. Sayous, pp. 12, 13, 19, and *passim*. *Yale Review*, 1902, "The Economic Crisis in Germany."
[3] *F. O R.*, 3445, p. 82.

but as a convenience in carrying on their various outside dealings. In this respect there is a striking contrast with the London joint-stock banks, the controlling influences in which seem to be much more exclusively banking influences. . . . The most that can be said with certainty at present is that the financing of some large speculative enterprises is probably somewhat more easy in New York than in London."[1]

"In the field of banking, which until recently has been completely decentralized in the United States, institutions of great size have been established to finance the operations of these great enterprises, and are rapidly extending their control over other banks in the leading financial centres."[2]

"One great danger is the control by Trust magnates of capital in money and credit; they can crush and buy cheaply a rival concern by withholding credit, raising interest, or calling loans."[3]

Equally formidable to the independent producer is the alliance, secret or open, formal or informal, of industrial combination with the means of transport. In Germany this danger is of course avoided; the State has rather hampered the Cartels so far as transport is concerned through its import rates as regards the "finishing trade." But in America the history of the "smokeless rebate" is notorious. The Standard Oil Trust was built up by it, through a contract which worked doubly against the independents; not only were they charged a higher freight than the Trust paid, they in the same act subsidized the

[1] *Economic Journal*, 1903, "The New York Money Market."
[2] *Cambridge Modern History*, Vol. VII., p. 721.
[3] Prof. Commons, *The Independent*, May 1902; cf. Bolen, *op. cit.*, p. 235.

Trust, which was strong enough to compel the railway to hand over the excess.[1] This is probably the most forcible instance of bargaining strength aimed at a rival's lines of industrial communication. In spite of the recent legislation, it is said that the rebate system is still common in American railways. Similar facts were brought out in the case of the Mogul Shipping Company. Only a strong combination can force such terms on a railway company, by threatening to build lines for itself, or a connection with rival lines. The railway company may be at a bargaining disadvantage, on account of its fixed charges, the high specialization of its plant, and the fact that it holds no stocks in reserve.

The boycott has been extended to the relations of workmen and employers. Thus the New Trades Combination movement in Birmingham involved a contract that the men and masters would deal solely with each other in regard to labour. The same attempt has been made in some of the American Trusts, the bargain being as voluntary on one side as on the other. Workmen appear even to have aimed at the formation of a Trust, in the hope of higher prices and wages, by withdrawing their labour from factories which did not maintain prices.[2]

The good-will of an independent producer can be impaired by a combination strong enough to obtain influence over the Press. The best-known instances of this have occurred in connection with the Baking Powder Combination and the Standard Oil Trust. The former sought to damage the reputation of its rivals by the publication of news

[1] *Industrial Commission*, "Evidence on the Standard Oil Trust," Vol. I. Montague, *Rise and Progress of the Standard Oil Trust*, 24–5, 33–5, and *passim*.

[2] *Political Science Quarterly* (Miss Atkinson), Vol. XIX., p. 200, *seq.*; cf. *Industrial Commission*, VII., 96, and *passim*.

reflecting on their methods of production and the nature of their materials. The Standard was apparently able to subsidize the Press in certain localities, so that articles appeared as news, on condition that they should not bear any mark of advertisement, favourable to the Trust and hurtful to its competitors. Thus it was said of the *Oil City Derrick,* which the Trust had bought up, that "it is bitterly opposed to the independents, and attacks the credit and reputation of the men who are exerting themselves for an outlet."[1] The same methods are said, in reply, to have been employed against the Trust by the Producers' Association. By control of the Press in its own locality, a combination may stop at its source the circulation of knowledge as to its own methods an.. position. This form of bargaining has occurred only in a sufficient number of cases to indicate that it may become important. The bargaining aspect may become very slight, and the practice approaches then to a method of Resource.

Lastly, where political power goes with the accumulation of wealth, and especially therefore in America, the Legislature itself may be made the stumbling-block of the independent producer. The practices in question imply rather an influence than a bargain; they stand on the margin of bargaining methods. Thus a Trust may have enough control over many representatives to be able to obstruct a general measure unless a specific clause is attached to it; as the Sugar Trust is believed to have been able to do at the passage of the Dingley Tariff. The sympathy of the combination movement might render

[1] Vol. I., Part II., p. 399; cf. pp. 312, 321, and pp. 404, 487, 587 for the defence; cf. Vol. XIII. on "The Baking Powder Combination."

such methods more effective than they have yet been; parliamentary expenses seem to be part of the finance of a Trust no less than of a Trade Union. The policy is more easily and secretly carried out in a local than in a national legislature.

CHAPTER IV

RESOURCE

In the competing strength of every firm or organization there is included a factor which I have proposed to call Resource. It is best defined by enumeration of instances, or by relation to other factors of competing strength; for its methods depend on all the incalculable opportunities which the market offers, and on all the unmeasurable forces of human ingenuity. The mildest forms of Resource are anticipated in some aspects of Productive Efficiency; in what have been called "costs of competition" as contrasted with "costs of production." The most important of these costs of competition are the costs of advertisement and agency. But the full cost of supply includes normal charges for marketing, so that the consideration of such charges belongs to the study of Productive Efficiency, and the effect of combination upon them has been indicated already. Certain advanced forms of agency and advertisement would, however, be more properly considered under another head than Productive Efficiency; such as advertisement which aimed at the credit or good name of rivals, or agency which secretly blocked or intercepted their trade, or even destroyed their capital. These methods belong rather to the tactics and strategy of trade. Yet it is clear that the boycott would come under this head also; and we have still to distinguish Bargaining from Resource.

This distinction rests on the fact that Bargaining includes an element of contract, while Resource does not; that the methods of Resource are employed by a firm on its own account, so that it makes war without allies.

Thus when a firm seeks by use of the boycott to exclude a rival from his buying or selling market, or by agreement with the railway or the Press to cut off his transport facilities or damage his reputation, it employs methods of Bargaining, and we have analyzed the conditions of success of some of them; but if it does the same thing by over-reaching the element of contract, and cornering for itself the supply of materials, or the demand of the wholesalers, or the railway lines of a district, then it employs methods of Resource, and the conditions of success are somewhat different. Again, it employs Resource when it abandons the attempt to close the market for its rivals, and endeavours by a losing war to render their position impossible.

Any of the methods of Bargaining may be regarded as developing finally into a method of Resource; a firm can always purchase for itself a source of supply, or a means of transport. The "higgling of the market" may develop into the ownership of raw supplies, for the sake of defence or of economy; and the wider form of Bargaining may develop similarly for purposes of aggression. But this development is only a logical one; when a steel firm buys its own coal mine this may imply that it has either more or less than ordinary bargaining power. Some, again, of the methods of Resource have no counterpart in the Bargain; such as the discriminated price.

In the give and take of independent competition, firms will seize local and temporal advantages which they either make or find offered; local prices can be cut, or supplies cornered, or facilities discriminated. But the resource of

combinations gives vogue to two long-period industrial policies, which have become specially prominent—integration and the discriminated price. Without seeking to classify methods of Resource, we may examine these important cases.

The method of integration has been already referred to. By it is meant the undertaking, by a firm which has hitherto operated at one distinct stage of the whole process of supply, of additional processes, which are clearly marked out as separate processes even after integration has taken place. Integration gives the distinction between "pure" and "mixed" works. It has three forms—forward, backward, and lateral integration. The last of these is nascent in the by-products of the independent representative firm; but lateral integration goes beyond by-products. It extends to the control of substitutes, or other independent commodities, for the sake of reserve strength or of retaliation. The Standard Oil Trust aimed at the control of the gas supply of some cities, and the Sugar Trust became a producer of coffee. Backward integration means that control is obtained over lower processes, forward integration implies that higher processes are brought under ownership. In the cases of lateral and backward integration, the main activity of the firm is not superseded, but holds its place as still its central activity; and this is true also of forward integration of other than manufacturing processes. Thus a steel firm may intergrate its coal supply, or its distributive agency; but it remains a steel firm. The Sugar Trust integrated laterally the supply of coffee; but remained essentially a sugar organization. On the other hand, and especially in cases of forward integration of manufacturing processes, the original activity of the firm is often made subsidiary and auxiliary, as when ironworks extend in the direction of steel

products. This "forward" integration is less easy and less usual, and is a bold stroke of offensive or defensive policy.[1]

The question may be raised whether integration is a movement co-ordinate in significance and importance with the combination movement; that is to say, what justification is there for treating it as one of the methods of combination? Could not the organization of national industry have taken the form of "vertical amalgamation" of interests instead of, as now, that of "horizontal" amalgamation? Or could not the two methods develop side by side?

It is clear, in the first place, that the abnormal market conditions which give rise to combination are not such as could lead to integration. Integration cannot be based on excessive competition between the firms included, since they produce different things; except in the rare case of lateral integration of substitutive goods. Nor is integration due to excessive competition on the level of either of the firms in the union; on the contrary, such competition is beneficial to the other firm, whose bargaining power it increases; and the firm which is subject to it on its own level, at any rate does not have its markets closed by boycotts; since its rivals have, by hypothesis, not strength enough to form boycotts.

It must be granted, however, that integration can lead to economies some of which are open in a less degree to combination. The claim that these economies are considerable is apparently supported by the notable instance of the co-operative organization of wholesale and retail trade. This organization now extends backward from the

[1] "The ostensible and immediate cause of the (steel) consolidation was the intimation that the Carnegie Company had arranged to extend their competitive resources for the production of tubes, etc., on a scale and in a location that would have involved detriment to existing manufacturing interests." (*British Commission of* 1902, p. 185.)

final consumer to original sources of supply in land, to means of transport, to manufacture, and to distribution. Yet only to a limited extent, and under special conditions is Co-operation analogous to integration; and it is scarcely safe to argue from one to the other.

The relation of the wholesale to the retail societies in Co-operation is not that of firms to each other in an integration. For the retailers have no corporate existence at all except as members of the Wholesale, and the Wholesale is nothing but the combination of the retailers. It is their common buying agency. The buying and selling agency of a great Cartel is not said to integrate or to be integrated by the constituent firms; it is the means of the combined action of the firms.

So far, however, as transport and manufacture have been brought within the ownership of the Co-operative Wholesale, there is real integration. To the extent of from twenty to twenty-five per cent. the great British wholesale societies distribute goods of their own manufacture or production. But there are special features in their case. They make savings, chiefly in respect of risk, which the integration cannot usually make. In the first place, they deal in staple articles of food and clothing, the demand for which in any case is steady; in the second place, their market is secured by a tacit agreement of the members of the organization to buy from their own societies, and this is a bond which cannot exist where there is no identity of producers and consumers; lastly, many services of management are rendered gratuitously, because Co-operation is undertaken in a spirit that is not present in the open market, and which is so important to the success of Co-operation that its absence in the usual cases of integration alters the whole aspect of the question.

Integration does not buy its material "at cost," if by

this is meant "prime cost." When two capitals are joined, it still remains necessary to pay normal interest on both. The claim to buy at prime cost is purely a matter of book-keeping. The real meaning of this claim is that the full cost is not swelled by brokers' charges. This is an evident economy, provided the brokers' work has not to be done under another name within the integration.

Integration can make economies in management. These are not quite similar to the economies of combination. It is clear that comparative accounting cannot operate with the same facility between firms on different levels. But integration in itself does not imply a great degree of monopoly for the highest firm in it, so that outside competition remains an exacting influence. Again, an integration will usually include fewer firms than a combination, and the burden of management will be less heavy.

Yet the facts go to show that integration does not rank as an independent and co-ordinate method; but rather as a resource due specially to the rise of combination. The grounds of this result appear to be as follows.

The organization of national industry as a system of complete combination is possible; but it is not possible as a system of complete integration. For if an integration were complete it would have to produce its own raw and auxiliary materials for itself; and the production, say, of steel, would be made compartmental and uneconomic. The most powerful integrations which exist are the Steel Trust and the Steel Cartel; but it is to be observed that they can produce their own auxiliary materials and machinery, and are therefore somewhat special cases. If all industries became completely integrated, the Steel Trust would vanish for want of a market; textile manufacturers

would make their own machinery, and railway companies their own engines, rails, and bridges. It is because complete integration would in itself tend to break up production on a scale of proper magnitude that its other economies are not strong enough to give it vogue.

The integrations which exist are therefore partial; they include only a certain number of the processes of supply. The Coal Cartel has integrated the processes of distribution, but does not produce its own steel. About such partial integration there are three facts to observe. First, that it is an influence contrary to the formation or stability of combination on certain levels; for it plainly tends to weaken combination among firms, if each owes its supply to a higher firm of another kind. Only residues which the latter did not require would be left for sale on the open market. Since the most important cases of integration are of the "backward" form, the tendency is detrimental to lower combination; we should have to look for combination among the finishing industries; but these are, for other reasons, the least open to combination. The whole influence of integration by itself is therefore contrary to the combination movement. Secondly, it is combination on any level which creates the occasion for integration from another level; integration is the evident means of escape from its dictation. Thirdly, it is a combination which is best able to integrate, because its demand is large enough for an output produced on the scale of maximum efficiency on another level.

This analysis seems best to fit the facts as they are presented. We find combinations integrating their backward or forward processes in order to free themselves from the pressure of other combinations; this policy belongs to the tactics of industrial war under a *régime* of combination; it is at present partial and occasional, but

its development on a completer scale would threaten the position of lateral combination.

As a method of Resource, integration is used for either attack or defence. As instances of attack may be mentioned the control obtained by the Standard Oil Company and the Westphalian Coal Cartel over the distribution of their products. The former has now a system of agency which has enabled it to follow step by step, and literally day by day, the transactions between buyers and rival sellers, and by careful methods of invigilation to create petty annoyances or secure the revoking of contracts. The action of the Carnegie Company has already been mentioned.[1] The Railway Companies which operate in the Anthracite Coal field of America have become the main producers of coal, and have a special power to impede the trade of the independents. The contest between the Arbuckles and the Sugar Trust is one of the most interesting cases of the give and take of industrial war; "nothing is more certain than that such tactics will mark the trade wars among our huge combinations in the future."[2]

The integration is as yet most commonly a means of defence against combination. There is always the danger that the residual uncombined supply may go over to the Trust or Cartel if this result is not anticipated. And there are various incidental advantages while integration is partial.

"Every stage of manufacture boasts its own syndicate. It is natural that the greater the number of stages which the manufactured goods have to traverse, the more will the last manufacturer find himself handicapped. Hence there has been a tendency on the part of the consumers

[1] p. 96, note.
[2] *Commercial and Financial Chronicle*, Vol. 70, p. 984.

to free themselves from the syndicates representing the earlier stages of manufacture, a tendency which must of course remain limited, as it presupposes considerable amounts of available capital. A simple illustration is the case of members of the newspaper syndicate, who combined for the purpose of working their own paper mills to free themselves of the paper ring, which had steadily driven up the price of paper, probably under pressure from rings dominating the earlier stages of its manufacture, as, *e.g.* the syndicate for bleaching powder and others. Rolling mills again, labouring under the high prices and hard conditions of delivery fixed by the syndicates of semi-punched goods, established their own steel works. This brought them, as far as semi-finished goods were concerned, into direct touch with the Raw Iron Syndicate. To free themselves from the Raw Iron Syndicate they acquired or started blast furnaces, and whenever possible they even bought mines and coking furnaces to get beyond the reach of coal and coke syndicates. Under these circumstances it is clear that the present price policy of the syndicates means a tremendous advantage for those large establishments which can carry on all the stages of manufacture within their own establishments. On the other hand, he who can rely upon his own coal mines, etc., *i.e.* whoever can produce his own semi-finished goods from which to make finished goods, must be very anxious that the syndicates should maintain high prices for all raw and intermediate materials, for he is only seller and never buyer; he can produce his own semi-finished goods at a reasonable cost, and can thus most successfully compete against all those who must, on the home market, buy semi-finished goods as their raw material at high prices."

[1] *F. O. R.*, 3042, p. 28–9; cf. 3085, p. 19.

"Owing in no small measure to the special associations of the iron industry, such as pig-iron syndicates, syndicates of half-finished products, etc., a sharp contrast has developed between the mixed works, that is to say, those works which work up the pig-iron that they themselves produce, and the pure rolling mills which are dependent upon the mixed works for the purchase of the raw and half-finished material. The rolling mills complain of the competition of the mixed works which are able to base—and have actually done so during the general depression—their own selling prices for finished products upon the costs of production of the pig-iron produced by themselves, while the rolling mills had to pay them the high syndicate prices for the pig-iron and half-finished material, thus leaving the mills no margin of profit on the sale of the finished article."[1]

The effects of the "autoritatisme" of the Cartels, which are abundantly exemplified in his book, are summed up by M. Sayous in the opinion that, "la concentration semble cependant probable, surtout si les cartels font payer tellement cher à leur clientèle les matières premières et semi-œuvrées qu'ils rendent l'existence impossible aux 'purs' hauts-fourneaux et aux 'pures' lamineries."[2] The government has had to undertake, in defence, the operation of fiscal mines.

The influence of integration in weakening the strength of combination, even when already formed, is to be seen in the problems that have recently arisen in the Westphalian Coal Cartel. The Cartels maintain individuality to the extent that, in this case at least, a Cartelled firm could be bought by an iron or steel establishment; and, under the new contract of 1903, the coal mines thus

[1] *F. O. R.*, 3153, p. 2; cf. 2845, p. 20.
[2] *La Crise Allemande*, p. 56; *v.* pp. 53–6; 102, 201–3, 303–12.

integrated did not require to deliver to the Cartel the quantities required for "own consumption." These mines naturally increased their output without reference to any restrictions imposed by the Cartel, but with chief regard to the needs of the iron works; they delivered only a residue for sale by the Cartel, and the Consular reports indicate that "if generally adopted, this policy would end in the dissolution of the Coal Syndicate." "The Syndicate and Cartel movement, and the concentration movement, are likely to clash." "These combinations (integrations) will most likely render a renewal of the Coal Syndicate impossible when the time comes."[1]

The conditions under which integration will be a successful policy are capable of analysis similar to that used for the boycott. As a rule, when a producing and a consuming firm are integrated, they will not be so exactly fitted to each other that the demand of the latter will coincide with the most efficient scale of output for the former. The terms of a boycott are such that this difficulty cannot be overcome by buying a deficiency or selling an excess in the open market. But in an integration, where the contract element disappears, these remedies are possible, and they materially affect the analysis. There is this second difference between the boycott and the integration, that the latter operates as one organization, not as a bargain between two, so that the total profits are pooled; the advantage to the integration as consumer may be greater than the loss as producer of raw materials, if the production of the latter is extended beyond a point that would be fully remunerative on them considered alone.

Let us consider, with these qualifications, the case of

[1] *F. O. R.*, 3333, p. 6–7; 3390, p. 17; 3445, pp. 20-1, 69, 78, 80; 3221, pp. 62–3, 67.

integration when the supply firm produces according to increasing cost, calling the lower firm A and the higher firm B. Suppose as before that integration takes place in a previously open market. Then if B took more at the open price than A sold, the integration can merely buy the residue on the outside market, leave all conditions unaffected, and gain only whatever economies are incident to integration. In this case, therefore, the integration does not fail like the double boycott. On the other hand, if B took less under open conditions than A sold, the integration may simply sell on the outside market A's surplus, again leaving all conditions of price as before. It will probably do this if its policy is purely defensive. But, as in the case of the boycott, the higher firm can expand so as to consume all the output of the lower; it will then have taken more supply than demand from the open market, leaving more demand than supply, and driving up the outside price of materials so as to give a competing advantage to the integration. Or again, it may sell some but not all of A's residue, in which case the outside price is still kept above the open price, so that it sells with a margin of profit.[1]

When the lower firm produces according to decreasing

[1] Using the same method as for the boycott (pp. 83–5), we have in Fig. 1 the case where the boycott failed under increasing cost.

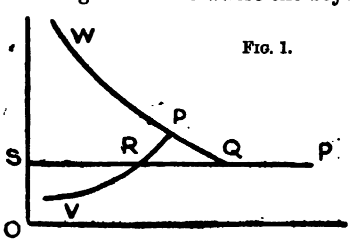

Fig. 1.

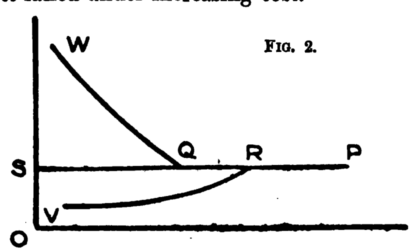

Fig. 2.

The Integration produces SR for itself and buys RQ. It thus takes from the open market the same amount SQ of demand and supply, and leaves general conditions unaffected. In Fig. 2 the

cost, the conditions are in this case again difficult to determine exactly. The integration may as before pursue simply the defensive policy of buying a deficiency or selling an excess of materials, and gaining only any economies of integration. If it pursues a more aggressive policy, the complications are very great. Thus if the integration takes less demand than supply from the open market, B having consumed less than A sold under free conditions, then the outside price will fall by expansion of supply to meet demand, since there is left more demand than supply; and a policy of aggression by the integration will result in a demoralization of the market, the outcome of which depends on relative capacities and strategic advantages. If the integration abstracts from the open market more demand than supply, it can up to a certain point expand its supply of materials to meet its demand, and at a falling price; while the outside price has gone up, there being left more supply than demand, so that supply contracts. It is probable in this case that the integration, if it has great capacity, will be able to encroach on the finishing trade of its rivals.[1]

Integration may sell QR and use SQ, again leaving the same amount of demand and supply, QP, on the open market. Or it may retain QR for itself, in which case there is PQ of demand against PR of supply outside, so that the outside price goes up, and the finishing trade of the integration extends to the extent, roughly speaking, of QR in materials. Or it may sell part of QR, at a price which will clearly be greater than OS.

[1] Thus in Figs. 3 and 4 the quantity RQ may be simply bought or

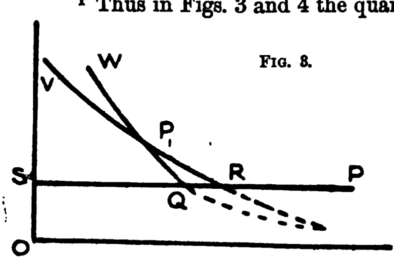

FIG. 3.

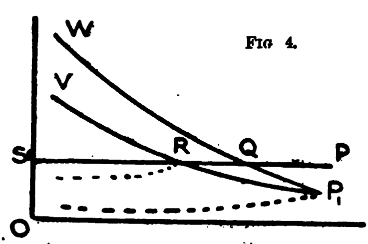

FIG 4.

A method of Resource which has some analogy to the integration is the cornering of the best expert management at the origin of a combination. New men cannot at once compete with those who have an experience of ten or twenty years in the business; the result is to weaken potential competition and "place the Trust firmly in the saddle."[1] It would appear, however, that a corner of this kind is not very easily obtained in America. On the other hand, Trusts have been able to attach some of the best legal ability to their special service; and they are thereby able to wear down their detractors if it comes to a civil action.

Next to the integration, the discriminated price is the most important of the methods of Resource. It is to be distinguished from the system of definitely arranged "selling zones" by its less systematic and more occasional practice; for the "zone system," whose principle is to "charge what the trade will bear," by itself implies a certain stability in the position of the combination, while discrimination is an incident of the endeavour to get or keep such a position. We have already seen that a combination is able to bear any given loss better than an independent; hence it can sell below cost in any local market till he is driven out. This is the practice to which the name of "clubbing" has chiefly been given by Professor Clark.

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sold. If not, Fig. 3 gives the case where the outside price will fall, since the demand PQ is greater than PR the outside supply, so that the latter will expand. The integration will fight the outsiders by producing its raw materials at a loss, since P_1 is a point of stable equilibrium. In Fig. 4, the integration can produce beyond P_1, and sell part of its raw materials on the outside market. The possibilities are complicated, but the integration will probably gain, since $PR > PQ$, so that outside supply price rises.

[1] Bolen, *op. cit.*, p. 34; cf. Tarbell, *Standard Oil Company*, Vol. II., p. 274.

Discrimination may mean either that the price of a certain quality of goods is put exceptionally low for a time, or that a better quality is sold at the given price; the latter is the policy known to the Cartels as "de-baptizing" qualities. In practising these methods with a deliberate desire to ruin competitors and hold the market at a higher price afterwards, a combination has the advantage, if its plants are well distributed, of being able to sell from its nearest establishment, so that it does not add transport charges to its other temporary losses.

This practice is not equally possible for producers of all kinds of goods. It requires some degree of integration of local agencies to carry it through. The competitor would otherwise reduce his own price, and buy from the combination, probably in a disguised manner, till he gradually exhausted its efforts; or he, or other agents, would resell the output of the combination in its dearer markets. It is further possible that competitors will arise in the large local markets, where invigilation by the combination is less easy, and the quantity which must be sold at a loss very considerable. But combination has evidently been able to employ this method with success enough to draw on itself the attention of the legislature, especially in America.

The methods discussed in this and the preceding chapter have been so practised as to raise the question of "fair price" in special connection with industrial combination. I have attempted, therefore, before closing this part of the argument, to find some principle by which to judge industrial methods.

APPENDIX

CHAPTER V

FAIR PRICE

THE aim of this chapter is to find whether there are any definite criteria of fair price. The question arises with special insistence under a *régime* of combination. As a rule, appeal is made against certain methods to moral sentiment; and in some vague way this sentiment approves when such an epithet as "pernicious" is applied to price discrimination, or even when the higgling of the market is described as a method of "designing dodges."[1] The precise basis of this attitude is less easy to discover.

We have already seen that the "survival of the fittest" must not be supposed to carry any ethical implications. Fitness is proved solely by survival, whether attained by Productive Efficiency or by the methods of Bargaining and Resource; thus Mr. Bolen doubts whether any existing Trust owes its position to efficiency alone. We have also remarked that, though combination increases the possibilities for the moralization of trade, it also increases those for extortion; so that reasoning on general aspects is almost impossible.

The charge of inherent tendencies to unfairness has been brought against both independent and combined production. It is often given as a chief motive of combination, that independent competition puts a strain on

[1] Edgeworth, *op. cit.*, p. 46.

trade morality, and causes many ramifications of secret and unfair dealing. Thus we have such statements as the following:—"The general chaos that free competition had brought upon industries cannot be seen if the eye is directed chiefly to the single business, but only as we look at the whole group of firms or corporations, and note the relation in which they stand to each other. The manner in which they have come to fight each other —the wasteful and sorry devices to which they are driven—give us only true measure to the facts."[1]

"Competition has got us now where the only dress that we ought to wear is the cap and the bells."[2]

"The Wire Tack combination states that before its organization prices among the different competing establishments had fallen so low that manufacturers, in order to avoid bankruptcy, had resorted to defrauding the buyers. In packages which should have contained 1000 pieces, at times were found only 900 or 800 or even 700 pieces."[3]

Hence the movement to combination has been represented as one toward the moralization or even the Christianizing of trade. Thus the New Trades Combination Movement "proclaimed, as the first article of its creed, that no one ought to manufacture and sell an article without making a profit on the transaction. It is a crusade of intelligence against ignorance, of enlightenment against prejudice. It is the outcome of a resolve to trade on fair and just principles. The truth is that we must go back to the old Christian teaching of the mediæval moralists. They held and taught that everything had a *justum pretium*, and that everything less or

[1] *Engineering Magazine*, Vol. XVIII., p. 353.
[2] *Ibid.*, p. 354.
[3] Vol. XVIII., p. 111.

more must be unfair to somebody. This is the Golden Rule of business."[1]

"The idea of mutual exchange of services by free and independent producers in a state of economic equality results, not in a simple, but in a highly complex, industrial structure, which, whether or not consistent with any real Liberty, is strikingly lacking in either Equality or Fraternity."[2]

On the other hand, the practices of industrial combination are quite as severely censured. The New Trades Combination Movement was a boycott; so, in some of its clauses, is Co-operation itself. Thus combination, even when entered on with the best intentions, seems to have inherent vices. For the boycott is usually condemned; and so is the lowering of prices "to meet competition," although it is a practice not unknown in private trade.

Authorities are either inconsistent or vague. It was maintained by early moralists that there was such a thing as the *justum pretium*, though they allowed a margin for bargaining between the *summum* and the *imum justum pretium;* some similar implication is at the basis of such reasoning as Professor Clark's. Both leaders of industry, and economic and legal authorities, give opinions that conflict with this view. "I think it fair," says the President of the Sugar Trust, "to get out of the consumer all you can, consistent with the business proposition. . . . I do not care two cents for your ethics."

"Taking advantage of other people's necessities is the very essence of commercial enterprise," in Mr. Thornton's opinion. The English Courts have decided that they cannot discriminate unfair trade. "Trade not being

[1] Smith, *New Trades Combination Movement*, p. 6.
[2] Webb, *Industrial Democracy*, p. 673; cf. *Manual for Co-operators* (1881), pp. 20–1.

infinite, what one man gains another loses. But persons have a right to push their trade by all lawful means. Amongst lawful means is certainly included the inducing, by profitable offers, customers to deal with them rather than with their rivals."[1]

I offer one general criterion, and three that are more special. Generally, the fairness of a practice in industry depends on some view of the final aim of industrial activity. It would probably be agreed that this aim is twofold, having a static and a dynamic aspect; the satisfaction to the fullest possible extent of existing wants, and adjustment to new wants as they develop. It is from the static aspect of this aim that we judge restriction of output as unfair; this is the broad basis of suspicion against combination of any kind. Further, on the dynamic ground, it would commonly be judged wrong to maintain prices so as to cover an excessive investment of capital, some part of which might meet new wants elsewhere; that is to say, it would be invalid to lay it down, as is done in one of the above quotations, that "no one ought to manufacture and sell an article without making a profit." Certainly not, *if he ought to manufacture it.* But perhaps he ought to do something else; the fair principle being, not "what the trade will bear," but "what can be afforded for that trade in view of the whole wants of the community."

It seems possible to assert three more specific maxims. First, that it is unfair to create a false expectation.[2] Sales at a price which it is not proposed to maintain

[1] The references are—St. Thomas Aquinas, *Quæstio* 77; *American Commission*, Vol. I., Part II., p. 118; Thornton *On Labour*, p. 117, and Bk. II., ch. ii.; Lord Justice Coleridge, *Mogul Shipping Coy. v. the Conference Lines.*

[2] *v.* Sidgwick, *Methods of Ethics*, Bk. III., ch. v., 6th edition, p. 269.

would come under this principle; since they create a needless risk to the buyer, and may lead to investment which is afterwards rendered useless. Thus, although goods are often sold cheaply for a time to advertise them, it would be more fair to sell at the normal price, and pay the costs of advertisement. Second, it is ethically more important to treat all buyers alike, than to treat some of them uniformly; for the former practice affects their existence, while the latter presupposes it. This is the moral ground of objection to all forms of discrimination. Lastly, fair trade requires that competition should take place *through the consumer;* for it is thus that capacity to render service can alone be measured, and it is unfair to prevent the application of the test. Thus all means by which rivals are prevented from access to the consumer would be condemned, such as by boycotts or corners or other methods of resource and bargaining. On this ground, the judgment of the English Court seems to be mistaken. That trade is limited, so that what one gains another must lose, is the fallacy of the "fixed work-fund." Trade is limited only *at a price* or *at a rate;* but the access of rivals to the buyer affects this price or rate, and expands trade so that all may gain.

PART II

TRUSTS AND CARTELS, AND THEIR RELATION TO TRADE UNIONS

CHAPTER I

THE GENERAL CAUSES OF TRUSTS AND CARTELS

IN the preceding chapters an attempt has been made to describe how the main elements of competing power are affected by industrial combination. We have now to consider the conditions by which combination is itself occasioned.

There is, at the outset, a broad distinction between those conditions of the market, or of human nature, which induce the desire for combination, or the readiness to adopt the proposal when it is made; and those which affect the possibility of carrying out the proposal into actual fact. The former are best described as the subjective, the latter as the objective conditions of industrial combination. The stress of competition may affect producers severely, and yet the remedy of combination may not be possible or easy; on the other hand, combination may be quite feasible and yet producers may prefer to retain their independence.

The nature of the influence which acts on the imagination of the producer himself depends upon the market conditions under which a combination is suggested. When combination is entered upon in order to create new economies, and to operate under normal conditions with greater efficiency than individual firms can, the

subjective influence which occasions its rise is analogous to that which acts on the mind of any inventor or initiator of enterprise; the foresight of new possibilities, and the confidence that in the long run it will pay to make use of them. But if combination is not entered on in this spirit, the subjective influences ought to be classified so as to indicate the nature of the undertaking.

In his analysis of the subjective basis of combination, Liefmann uses the phrase "direct combination" to imply that the enterprise has been entered on before competition had become excessive, and had led to unremunerative prices; and he uses the term "indirect," to imply that combination has arisen out of those abnormal market conditions which are usually made prominent in the apologetics of the movement. He would therefore include under combination directly formed both those instances where economies were foreseen and the structure was developed by normal evolution; and those in which there might be no economies, but considerable monopoly advantages, were open to a combination. But motives so different as these ought to be distinguished, for they affect essentially the significance of the undertaking.[1]

When combination is not entered on as a normal development, its motives are those which lead to common action in wider fields than the economic—defence and aggression. These are the fundamental tendencies of human nature which make for combination in politics, religion, or sociology, no less than in economics. Dr. Liefmann has spoken frequently of "preventive" combination; that is to say, a movement which anticipates crisis and creates combination directly. But it is clear that preventive action tends either to aggression or

[1] *Unternehmer-Verbände*, p. 46.

defence, according as what is prevented is the loss of an advantage or the incidence of a disadvantage.

Tendencies to combine which are in their nature aggressive have received less than their share of attention from economic authorities; the literature of the subject is concerned mainly with defensive or remedial combination. Producers, it is clear, may foresee how raw supply may be cornered, or bargaining advantages created, so that prices can be held abnormally high for a period long enough to make a combination worth while. It is impossible to predetermine all the ways by which such prospects may be opened up.

Defensive or remedial combination arises out of the stress of abnormal market conditions. The defence may be either general or special. It may have reference to the condition of an overstocked market regarded as a whole; or to the attacks of other combinations or agreements of producers.

Among these conditions we must reckon first the effect of independent competition in reducing profit, or in keeping it from rising, or in creating risk and uncertainty, crisis and depression; this being, as we saw, the fundamental aspect of production for a market under modern conditions. Thus, in an over-capitalized industry, the absence of agreement among the producers will, under conditions of decreasing cost, lead to a price war in which business is conducted by many firms at a loss, and in which the victory will lie with the greater staying power of certain firms; but the victory may be long deferred, if the firms are of nearly equal strength. Or again, in a rising market, each individual firm may be afraid to raise its prices, lest the others do not follow; and the same will be true of an extension of output under

increasing cost. The ups and downs, the fluctuations and uncertainties, so created, will suggest to producers the remedy of agreement or association to regulate price and output, and avoid wasteful competition; especially if there are great fixed charges on the capital necessary for the typical firm in any industry, and the market is a wide one.

Every outcry that prices are too low and risks too great must not be accepted as an adequate ground for combination. We must put out of count a *régime* of low prices which is due merely to the endeavour of one or two great firms to obtain monopoly by driving out competition; an endeavour which may fail, so that combination is the compromise. Again, "it must be noted that most men do not consider it good policy to magnify their profits before the world; that men who have been accustomed to large profits do really imagine themselves ruined when they are reduced to not much more than ordinary interest on their capital; and that lugubrious statements, made in general terms and without figures, ought not to be taken without salt."[1] Thus a normal profit on shares bought at a premium may lead to such an outcry. But there is a consensus of official and expert opinion concerning the risks of independent competition under modern conditions adequate to justify the complaints that are heard on all sides.

It is best, therefore, not to give ethical implication to the terms normal, aggressive, and defensive, as applied to combination. It is not always the case that a defensive combination ought to have been formed; and even normal combination is in a sense an attack on organizations employing the other method. We return to a positive analysis, and assume that producers will be attracted by

[1] Ripley, *Trusts, Pools and Corporations*, p. 49.

all chances of seizing profit or averting loss, which seem to be worth the sacrifice of independence.

These chances may not always be very clearly realized; the advantages, absolute or relative, of combination may be tacitly assumed rather than clearly reasoned out. In this way, combination may be entered upon by a form of trade sympathy or infection. If it becomes known that combination has succeeded in one sphere, differences of circumstances are neglected, and there is a rush to combine elsewhere. This imitative tendency not only implies that combination leads to combination; it may extend also to the form of combination, so that Trusts lead to Trusts, and Cartels to Cartels. But it is clearly a latent or unconscious operation of the general forces of aggression or defence.

In the counsels of the individual firm there will be a conflict between the stress of independent competition and the attractiveness of independence itself, supplemented by whatever special advantages the firm can rely on to carry it through a depression. It may have a long connection with and pride in a family name, a firm goodwill, a patent, a well-known brand, great resource, or special ambitions regarding fair wages and the social and moral aspects of industry. The pride of independence may lead it, therefore, even under intermittent depression of trade, to "look ever on the sunnier side of doubt," and to hesitate before the proposals of combination.

Let us now examine the *objective* conditions which make possible the realization of these desires. For combination or monopoly may be aimed at when it cannot be obtained; and if conditions which render it a feasible scheme are not given, other means of meeting the problems of the market must be sought.

We may divide these conditions as follows. Some of them affect the *formation* of an industrial combination,

and decide whether or not the initial difficulties of bringing the parties together can be got over; some again affect the *operation* of the united establishment, its ability to carry on its desired policy as to price or output; while some affect its *stability*, that is, the likelihood that the combination will be durable and not exposed to the risk of dissolution from within.

The formation of a Trust or Cartel requires in the first place that the parties shall be few enough in number to come to terms readily.

The statement of this condition indicates one reason why industrial combination has arisen only at a certain stage of economic development. It is the extension and cheapening of transport which centralizes industry, and causes the local producers on a small scale to give way to the large firms; and until the last decade of the last century the extension of railways was the typical outlet for capital. Combination would have been almost impossible while producers were very numerous and scattered; but the railway prepared the way for the Trust, whose problems are historically consequent on those of railroad consolidation and management.

This condition militates against the formation of international combinations unless these have been preceded by national ones. It is often argued that the removal of tariffs would not destroy Trusts and Cartels, but only extend their scope. This may be so,[1] provided the tariffs have already done their work in the formation of national combinations. Without tariffs at all, it is much to be doubted whether international agreements could arise.

The fewness of independent firms, when it is very marked, affects the formation of a combination not only in the facility of promotion, but also in the necessity for

[1] But *v.* p. 135.

union. For, as we saw, the intensity of competition reaches its highest point when only a few great rivals are fighting in the same market for a monopoly.

The second condition of easy formation is that the parties shall be near each other.

We have anticipated this condition in defining the combination of firms within the same centre as "combination of the first order"; this definition was based on the question of productive efficiency, but it is congruent with considerations of initial formation. For when firms are widely separated, national or local patriotism will become an influence in that conflict of counsels between independence and combination which has been referred to; even if differences of law or custom do not also prevent a binding agreement. Many of the so-called combinations between producers in different nations are merely province-agreements which scarcely deserve the name of combination.

In the case of Cartels, the proximity of the parties is not so much a helping as a necessary condition. The method of representative government requires that the producers shall be able to meet in full assembly; and the principle of the pure Cartel becomes weakened as the parties to it are more widely scattered.

The proximity of firms had of course rendered them more calculable to each other, and lessened the risk of their independent competition. Their union, if defensive, may refer therefore to another group of firms at a distance; there is a special opportunity for aggression if, being closely localized, they control a wide market.

A third condition of easy formation is that there shall not be great differences in the competing strength of the firms which combine.

This is evident, since otherwise the strongly placed

firms would have fought out the battle of independent competition instead of joining the union. It is not size alone which gives them the ability to hold out; any of the aspects of competing power may be specially emphasized in individual cases, as by patents, or long contracts, or established connection. Sometimes the difficulty of combination lies between the old works and the young, sometimes between the large and the small, sometimes between the "pure" and the "mixed." Liefmann points out that it is from the large firms that the impulse to combination in Germany has mainly been derived; yet the inclusion of less important firms is both necessary and creates difficulty. Thus the negotiations for the Steel Cartel "proved particularly difficult with some of the more important works like Krupp, Bochumer Verein, Phœnix, the Silesian group, the positions of which were so independent that a combination with smaller works held out small temptations. Their reputation could not be enhanced by 'being thrown into the same pot with the smaller fry.'"[1] "The difficulties affecting the renewal of the Potassium Syndicate arose chiefly from differences between the two groups known as the 'older' and the 'younger' works. Finally a compromise was arrived at, etc."[2] The contrast between the larger and smaller works was partly responsible for the failure to syndicate the leather industry of Germany.[3] As between "pure" and "mixed" works the problem is a very wide one, as has been explained already in reference to integration.

Fourthly, combination is easier if there is some degree of uniformity in the products of the firms.

We have already seen that combination implies standardization in a high degree. There is also abundant

[1] *F. O. R.*, 3221, p. 73.
[2] *F. O. R.*, 3287, p. 38.
[3] *F. O. R.*, 3445, p. 20.

evidence that the process of formation is impeded by differences in quality; and for this reason finishing industries are not easily combined. Thus the German Steel Cartel has not yet been able to take complete control of finished products, which are still sold by the individual works. "Syndication is as a rule possible only for raw material and half-finished goods." "The finishing trade is too varied to admit of syndication." "The endeavours to bring about a combination of the various groups of leather industries . . . have failed, chiefly owing to the difference between the larger and smaller works, and owing to the difference in quality of the various manufactures." For this reason the important Phœnix Works hesitated to join the Steel Cartel at all.[1] Cartels cannot overcome this difficulty so easily as Trusts can; being Cartels they must buy what is produced; but Trusts, since they are Trusts, can interfere in the management of the individual works. Liefmann states this condition in the assertion that the ratio of the work incorporated in the product to the material should be small; and the variations of quality will matter less if, in the case of "mass goods" so defined, a fair amount of grading is possible.

Fifthly, the process of formation is easier if there have been already opportunities for communication between the parties which combine. Such opportunities are furnished by Chambers of Commerce, by associations of masters with reference to the demands of Labour, by Institutes and Congresses, or by temporary associations such as are formed to make representations to the Legislature regarding the claims of an industry.[2]

[1] *F. O. R.*, 3221, pp. 62, 73; 3287, p. 34; 3333, p. 6; 3390, p. 16; 3445, pp. 4, 20. Walker, p. 8.
[2] Cf. Liefmann, *op. cit.*, p. 64; de Leener, *Syndicats Industriels en Belgique*, ch. viii.

Sixthly, combination in its initial stages requires the help of capital; and the availability of capital strongly influences the facility of combination, especially when this is of the Trust form. It is of less importance for Cartels which maintain the "pure" structure, that is, in which the syndicate is entirely composed of the producers themselves; but becomes of importance to Cartels also in proportion as they depart from this type and approximate to the Trusts.

During the first thirty years of last century the typical outlet for loanable capital was the financing of government loans. From the time when railways began to be built, transport took its place as the favourite investment, which it held till almost the last decade of the century. Capital had then to find a new outlet, either in some other new industry whose special risk was balanced by a high reward, or in the exploitation of old industries. The latter was in fact the course taken. With a great abundance of capital there was a lack of new enterprise, so that the manipulation of old businesses into Trusts and Cartels appeared the most promising method of raising the return on investments. It was, as we saw, the railways which made the Trusts possible; and by the time capital was done with railways these had prepared the way for their successor in the affections of capital. The promoter was not only ready but eager to offer his services in the promotion of industrial combinations.

Railway investment in America reached its height in the eighties, the boom years being 1882 and 1887; but in the nineties the activity passed away. In 1887 nearly 13,000 miles were laid; in 1898 only 3,000. The commercial journals began to comment on the lack of opportunity for investment; railway stock was so high as to afford "only the narrowest margin of return to the investor." The promotion of industrial combinations

seemed to offer a new opportunity,[1] not by sending capital elsewhere, but by making it more remunerative in existing industries.

Such being the objective conditions which make easy the formation of a Trust or Cartel, let us study those which enable it to operate with security. These are the conditions on which the hopes of promoters are chiefly based.

The conditions may be, firstly, the mere creation of economies, which will enable the combination to extend its trade and drive out its rivals. Or it may be the case that the producers in a certain district have already differential advantages over any other body of producers, which are now being shared with the consumer, but which a combination can to a great extent retain for itself; thus the producers in a freely trading country are likely to have such an advantage over protected rivals. By combination they can seize the greater part of the margin for themselves.

Again, when the localization of supply is very definite, the producers at any centre can by combination give themselves a monopoly in their own area; the objective condition is the natural protection afforded by freights from other localities. We thus get an inversion of the

[1] *Commercial and Financial Chronicle*, Vol. LXIX., p. 5: "We have spoken of the accumulation of capital as one potent factor in the extension of these industrial combinations. It will be very evident how strikingly, this being the case, the organization of such enterprises adapts itself to the existing situation. Every one knows the peculiar position of American capital at the present time. Our fortunate trade of the past three years, and our equally fortunate economies as a people have made the United States for the time richer in available funds than at any previous epoch in its history. Simultaneously it has been discovered that the field of available investment has not widened along with the supplies of capital. . . . It is not then surprising that promoters of industrial combinations should be hastening to place their shares in the open market."

normal state of things, so that prices are lowest at the margin of two markets, and highest at the centres. This is a common policy of combinations in extractive industries such as coal; it enables them to establish a "zone system" of prices, and a difference of attitude towards consumers in "contested" and "uncontested" areas. A national combination of producers might adopt the same policy with respect to home and foreign markets; but extractive industries have an advantage both in the bulkiness of goods in proportion to value, and in the conditions of supply. A large degree of German Cartelling has been consequent on this policy of the Coal Cartels.

The localization of supply which renders this possible is sometimes more artificial, though equally effective. Chemical industries often have legal rights over water power, and a combination may secure the monopoly of such rights. This has operated strongly in favour of English and French combinations. Thus the combinations in the Chemical trades in England have been helped by such privileges. The Bleachers' Association benefits by the fact that the old plants have certain rights over water power, which the law regarding the pollution of rivers forbids to new plants. For the same reason the Bradford Dyers' Association believed their combination to be "unassailable" by any distant competition. The same facts are true of the French Chemical Trusts. Patent rights have acted in the same way, as in the case of the American Steel and Wire Company which held the barbed wire patent. The formation of such Trusts as the Bleachers' or Dyers' Association depends on the fact that the same right is held by many producers who can only exploit it if they combine; so far as a patent is held only by a few firms, that will be a reason against their combining with firms which do not hold it, unless the latter

hold other patents, in which case one monopoly advantage will be bargained for against another.

The advantage of a combination even in respect of a refined product may in the same way depend on its control of localized raw materials. Thus the power of the Standard Oil Company to sell refined oil under the zone system is in the last analysis a power over raw supplies. This power is the greater because its most formidable rivals are in Russia and Burma. Thus the strongest Trust and the strongest Cartel—that in Westphalian Coal—owe their advantage to the same cause, and they manipulate their prices in much the same way.

In the case where combination takes the form of a temporary agreement, a temporary state of the market will be a sufficient condition of its success. Thus Cartels are likely to take their origin in a rising market, the special profits of which would be lost if each producer were afraid to start the rise in price.[1]

The influence of tariffs on industrial combination is so complex that it will conduce to clearness to study this objective condition by itself. Some authorities regard the tariff as the prime cause of most combinations, others assert that it has little to do with the subject; a third section regards it as a helping or fostering influence, the primary condition being the risk of the market. That the first view is inadequate the above examples show; the second often rests on the fallacy that because there are combinations in free-trade countries, we must seek the cause elsewhere than in the tariff system, a view which

[1] Trusts have been formed chiefly on the rising markets of 1887–1892 and 1898–1901. Mr. Bolen regards this fact as an index of their aggressive motive (*op. cit.*, 180). But it would of course be possible to argue in many cases that the rising market was due to the combinations, and was sympathetically extended to other producers.

neglects the negative influence of the tariff on the producers it excludes; the third view is the most popular, being adopted by Liefmann, and inclined to by the American Commission.

Some distinctions are necessary. A tariff is simply protective when it does no more than enable the protected country to become a producer of the goods in question; it merely establishes certain producers in the field of competition. A tariff is over-protective when it does more than establish these producers, and affords them a margin for raising their prices above full cost price.

The positive influence of a tariff is that which it exerts within the protected country; its negative influence is that which it exerts on producers outside that country.

Protection or over-protection may be either initial or resultant; initial if we regard the establishment of a certain rate at any stage of an industry; resultant, if we regard the development of an industry within the shelter of a rate once imposed. Thus initial simple protection may, through economies peculiar to the protected parties, become resultant over-protection.

It is clear that, if a tariff is simply protective of the typical firms working within it, no condition is created which offers an advantage to a combination of these firms. There is no margin which a combination can seize. If combination creates economies in supply, it may be worth while to combine, and make the tariff over-protective. This, however, assumes that the economies of combination are peculiar to that country, or act there with special force; otherwise foreign countries will make the same economies and cancel the tariff advantage. If combination creates economies it does not require a tariff to demonstrate the fact. An important application of this is in respect of the different forms which combination can

assume. Suppose that, on the whole, Cartels can make fewer economies than Trusts. Then if a Cartel is formed within a tariff to take initial or resultant advantages, it is possible that foreign producers may in defence, or by the negative influence of the tariff, form a Trust, thereby rendering the tariff effective by less than its nominal amount.

But simple protection is unlikely to afford even resultant advantages, for the further reason that it implies a deliberate policy opposed to the creation of such margins.[1] The tariff will be from time to time modified on a "scientific" basis. Thus it is found by the American Commission that on the Continent, especially in Austria and Germany, the tariff has aimed only at making certain industries national, and that, so far as combination is concerned, "the tariff does not seem to have been of special significance in Europe"; in many cases "its removal would have curtailed if not completely ruined their business." The strongest German Cartel is unprotected.

It is unlikely, then, that simple protection will offer any margin for an aggressive combination. But if the tariff is more than simply protective, such combination is possible on certain conditions. The protected producers must have a considerable control of the sources of supply, otherwise the high tariff will stimulate the competition of less efficient producers, till the market is over-stocked, and combination will be defensive. But if the producers control the sources of supply, they can seize the margin offered by the tariff by a purely aggressive union. Yet they will not be able to seize the whole of this margin if the point of maximum monopoly revenue is reached before the full tariff is made effective on price. The German

[1] *Industrial Commission*, Vol. XVIII., pp. 10, 163; cf. Clark, *Control of the Trusts*, p. 44.

Sugar Cartel was in this way explicitly based on the tariff, and fell with the tariff.

Let us now consider the operation by which a tariff causes defensive combination. Simple protection does not create a condition which tempts an exceptional investment; and does not therefore prepare the market risks that lead to defensive union. But the case is different with over-protection.

First, as to its positive operation. Its first effect is to shut out foreign supply except at prices which lead existing producers at home to strain their capacity to the utmost, and call into existence under the stimulus of high profit new plants which may spring up even in less advantageous locations. The impulse for investment overshoots the mark, and the home capacity becomes greater than the market can maintain at remunerative prices. Prices fall below even unprotected prices, perhaps even below the amount of the tariff itself, and a war of rates is begun by the stronger against the weaker firms. Some of the latter fail, but others are tenacious of their position, especially if they have strong financial support and operate without bonds, and the stronger firms may find it better to compromise and come to terms. A defensive combination is formed; it cannot succeed unless it can raise prices abnormally, for by hypothesis it includes an over-supply of plant; but the power to raise prices on a restricted output is given by the high tariff, which may now foster aggression in a combination primarily defensive, and thus operates doubly in causing the need for union, and offering the condition of its success.[1] Resultant over-protection will operate similarly in industries in which improvements have proceeded at home more quickly than abroad.

This double operation of the tariff in its positive aspect

[1] *F. O. R.*, 3042, p. 24.

assumes that a few home producers do not control the sources of supply. The combination may be formed before any or after only a few of the firms have failed; it may be a preventive rather than a remedial form of defence, although this might imply that only the excessive competition, and not the excessive investment, was anticipated.

This cause has acted clearly upon some of the great Trusts, which were founded before a general epidemic of promotion obscured other causes. The American Sugar industry has had a notorious connection with the tariff, and it is agreed that the excessive competition which first destroyed eighteen of forty refineries, and then led to the Trust, was due to high protection. Of the twenty-three plants entering the combination it was necessary to operate only five or six. The same influence acted on the formation of the National Shear Company, and the Tin-Plate combination. The latter was only kept alive by a tariff of 2·2 cents in 1890, but facilities improved enough to make possible a reduction in 1894 to 1·2 cents. The Dingley Tariff raised the protection to 1·5, and when the combination was formed in 1898 it is said in evidence that fifteen of thirty-seven plants had been driven to the verge of failure, though they were incorporated in the Trust.[1]

The negative aspect of high tariffs is not essentially different; the over-capitalization of the market is only created in another way. This influence has been neglected, and the neglect has led to doubtful views regarding combination in free-trade countries. Thus it has been asserted that the depression after 1873 could not be due to tariff policies, since it occurred in all countries, free and protected.[2] The American Commission argues similarly that:

[1] Vol. I., Part I., 176, 207; *Yale Review*, 1900, p. 156; Taussig, *Quarterly Journal*, 14, 503.
[2] Wells, *Economic Changes*, p. 1.

"Experience both in this country and in Europe does not justify the assertion (that the tariff is a chief cause). In our own country some of the largest and most monopolistic combinations have no direct tariff protection, *and in England, where there are no protective duties, many combinations have been founded, most of which have operated with success. Indeed in no other country than England is the form of industrial combination so like that generally found in the United States.*"[1] These arguments overlook the fact that an over-investment of capital, leading to an excessive competition, can be caused in two ways; either by increasing capitals, the market remaining the same, as happens within the tariff; or by limiting the market, the capitals remaining the same, as happens outside the tariff. There is nothing surprising in the similarity of English to American combination if the high American tariff has been specially levelled at England. Although it is important not to exaggerate the influence of tariffs, yet they have a strong influence whose theoretical basis is plain, and which spreads further than is at once apparent. A free-trade country is likely to have international markets, for the reason which makes it able to trade freely, and it is therefore liable to the influence of all tariffs in that market. The Bradford trade is said to have suffered considerably from foreign tariffs, and one of the English Trusts does quote the resulting competition as a cause of formation; the United Alkali Company is directly connected with foreign tariffs.[2]

But when foreign tariffs lead to defensive combination, the margin by which the combination hopes to be able

[1] Vol. XIX., p. 627.

[2] *British Industries* (Ashley), p. 231. The export of alkali fell between 1895–1900 from 6¼ to 3½ million cwts. Cf. Kollmann, *op. cit.*, p. 34.

to maintain the over-investment in the market may not be a tariff margin, but one due to differential advantages in production. The negative operation of the particular tariff is a single one, not, like its positive operation, a double one; it creates the need for combination, but the condition of success is otherwise derived.

We may summarize this view of the relation of the tariff to industrial combination as follows: Simple protection, in its positive operation, does not create either the need for combination or a condition of success; the positive operation of over-protection creates both of these if the sources of supply are open, and the latter alone if they are not open; the negative operation of either form of protection creates conditions tending towards foreign combination; the form which combination takes at home and abroad, and the relative progress of improvements in production, determine whether and how far *resultant* will have similar effects to *initial* protection or over-protection.[1]

We thus see that in some cases the tariff stands behind those risks of the market which raise the desire for combination. It is in these cases a real cause, not merely a condition of combination. This is contrary to Liefmann's view. "I combat the view," he says, "that the tariff is a cause, but allow that it is a helping condition. The relation between Cartels and tariffs seems to me the very opposite of the view that Cartels are organized to take advantage of tariffs; it was not for this, but in order to assuage the strife of competition, that producers strove to obtain *both* tariffs and combinations. The former was to get rid of foreign competition, the latter to prevent an indefinite internal strife. Producers soon saw that protection was only a slight advantage so long as the most violent com-

[1] *v.* Kollmann, *op. cit.*, p. 16.

petition prevailed at home."[1] But if we take this line of analysis we leave completely unexplained the fact of violent competition at home. If the tariff merely excluded foreign supply, firms at home would gain by that fact, and prices, if formerly very low, would become more normal. The defence offered by the tariff from the risks of the world's markets would rather reduce the reasons for combination than warrant this action at home.

"Excessive competition" is not a self-explaining phrase. We must always look behind it for its causes. Some of these have to do only with changes in transport and general market conditions; but the tariff can also be a potent influence. And we cannot merely discuss the relation of industrial combination to "the tariff"; everything depends on the aspect in which we regard the tariff.

The relation of the tariff to international combination is a matter of some controversy. We saw reason to think that these international unions could scarcely have been carried out unless national combinations had preceded them; and these are in many cases caused or conditioned by tariffs.

It is necessary to distinguish two questions which arise in this reference. First, what would have taken place had there been no tariffs at all? Secondly, what would happen now if tariffs were broken down? These are distinct questions, not necessarily having the same answer.

Had no tariffs been imposed at all, many of those forms of combination which are of the nature of bargains to limit the market, rather than of real unions, would not so easily have arisen. It is when national combinations oppose a formidable front to each other, that the war is staved off

[1] *Op. cit.*, pp. 66-7.

by an agreement to divide the market. So far, therefore, as national combination was based on tariffs, international combination would have had to wait. But again, many of the so-called international Trusts are not due to combination but to expansion; and this of a form confessedly due to tariffs. For a large business, say in England, overcomes the problem of foreign tariffs by placing a new plant within that tariff; and by thus becoming the owner of many and widely distributed plants it is given the name of a Trust. Trusts of this nature would also, then, not have been in evidence had there been no tariffs at all.

Let us try to answer the second question—what would happen now if all tariffs were removed? Both Professor Jenks and Dr. Liefmann reply that international combination would receive a new impetus, since national Trusts would be thrown into open antagonism.[1] This is open to question, since it is clear that the higher tariff was primarily protective of the weaker national industry; and the removal of all tariffs would leave it open to that national industry which owed least to its tariff to invade the foreign market with an advantage in productive efficiency. It is admitted that the removal of tariffs would destroy some national industries altogether. Nor would it follow that the stronger national combinations would, by extending their foreign trade, become of international importance; the freeing of the foreign market might dissolve even the strongest national combination (especially if it were readily dissoluble, as in the case of a Cartel or an agreement), since the new conditions would offer a stimulus to the enterprise of individual firms.

[1] Jenks, *Trust Problem*, ch. iii.; Liefmann, p. 66. Cf. Vol. XIX., p. 630: "The sharpening of foreign competition by the removal of the tariff would beyond any doubt lead American combinations in some cases to enter into international combinations."

Finally, we have to indicate the conditions of stability of combination when formed and in operation.

Defensive combination is the least stable. It is by assumption formed in an over-capitalized market, and it endeavours to maintain the cost of the excessive plant upon a selling price which must be higher than the normal. It is therefore liable to external competition, and all the fluctuations consequent on this; especially since defensive combination usually means that existing firms did not control the sources of supply. It was for that reason that the number of firms entering the union was excessive. But aggressive combination was not burdened in this way. It did not raise its price by compulsion. It is able to lower price without loss, and has a stronger position against new competition, especially in the case where it owed its power to control over the sources of supply.

Combination which is based on the tariff, or on objective conditions created by human institutions, is liable to be rendered unstable as these institutions are continually modified and revised. Here again combination which is not defensive has least to lose. For either it is based on direct economies, or natural advantages in localization, or its profits through the tariff or other institutions are such as can be reduced some way before its full cost of production is reached.

But most important of all for the stability of combination is the *morale* of the parties to it—their willingness to keep themselves subject to a control from which at times they suffer, to undertake their own output under a rigid discipline, and to see their own private good-will in the market become superseded by the less popular repute of an anonymous combination. The *morale* of combinations must rest on the "common consciousness of its

necessity—that fear of competition which occasioned its origin."[1] Yet it is doubtful whether the means taken to prevent individual members from secretly breaking the combination agreement are usually the most efficient; it is under the Cartel system that this problem arises, of cutting prices, altering qualities, granting rebates, and so forth. The method of discipline adopted to remedy this is that of penalties and original deposits that are liable to be forfeited. But if a definite penalty is attached to any act, not only will that act be done if it is worth the sacrifice of the penalty, but the very imposition of a penalty makes it a matter of private concern, not of honour, whether the act shall be done or not. On the other hand, the absence of a specific penalty may lead to a stronger discipline, since infringement would mean breach of honour, and the censure of other parties.[2] An elaborate system of invigilation cannot breed in the combination movement the ideals of community and industrial moralization which are its main attraction.

[1] Liefmann, *op. cit.*, pp. 69–70.
[2] Kollmann, *op. cit.*, p. 49. Sometimes, as in the Steel Cartel, certain payments are held over till the end of the agreement.

CHAPTER II

COMPARATIVE CAUSES AND STRUCTURES

In an investigation of the different forms which industrial combination has taken, it is possible to adopt one of two methods. The method of historical evolution may be used to show whether or in what way one form has led to another in the same country, and this enables us to perceive for that country the causes why the earlier forms were inadequate, or unstable, or did not gain all the advantages which were really available. The defect of this method is that it does not enable us to judge how a form of combination which has been historically superseded in one place would have operated if artificial or accidental causes had not offered greater advantages to another form of union; thus we cannot by an analysis of the history of pools in America decide whether, with a lower tariff and a different attitude of the Law, American combination might not in that "individualistic" and wide country have grown into a very developed form of the Cartel, regional in character instead of national, and conserving rather than suppressing individual independence. It is the method of lateral comparison which enables us to judge best of such possibilities; because the force of dissociation acts more plainly, and we can observe where national causes have altered the structure of national industry, and we can compare two existing and both highly

developed structures with each other. Thus a German Cartel is a pool which has been allowed to develop as such to the full, and it has taken a form which we could not have anticipated to have been probable from a mere study of American pools. It is of interest, therefore, to study comparatively, and across national borders, the most highly developed forms of Trusts and Cartels which exist, leaving the less mature forms out of account as common to both countries, and to investigate the comparative causes and the comparative operations of these highest forms.

In seeking for general comparative causes, the first which suggests itself is national temperament, and both economists and the members of Commissions ascribe frequently this source of variation of structures. But there is a very great inconsistency in their views, and it cannot be said that the evidence is useful.

Professor Ashley maintains that a prime cause of the Trusts is the "economic atmosphere of America." It is the spirit of individualism, aided by the extent of the home market, which has made America "the classic home of the large industry." "The main stock of the American nation are the most individualistic people that have ever lived on the earth, with an individualism which runs through every possible degree and combination." This is "the atmosphere which all breathe; the environment in which all action takes place; the fundamental fact for the economist." On this point he is supported by the Report of the Commission of the British Iron and Steel Trade on the Iron Industry of America, which defines American individualism as "the comparative absence of a leisured class. The typical American appears to live only to work, and to work at something that will be a lifelong career of usefulness to himself as an individual, and to the com-

munity as interested in mechanical improvements and economies." As a result of this, new industrial methods are more courageously applied, without the same diffidence in trying big experiments as exists elsewhere; so that "the natural and inevitable influence is favourable to the more rapid advance in the commerce and industry of the country than that of another country where leisure and so-called independence are deemed of greater value." And where individualism takes the shape of a belief in the equality of citizens before the law, so that social honours do not exist, there is left only one mark of public service—business success, and only one kind of power—the control of large fields of industry.[1]

It is true that Socialism flourishes more on the Continent than in America, and that State control is a more popular theory in countries like France or Germany. But to ascribe such individualism as a cause for the Trusts as against Cartels, is a considerable paradox; for individualism is just what the Trust suppresses, and the Cartel seeks to maintain. In fact, Dr. Liefmann ascribes the lesser development of all forms of combination in England as compared with Germany to the principle of extreme individualism in England. In the view of the American Commission "this appears on the whole to be the right conception." [2]

It is, in fact, broadly evident that it will be difficult to ascribe industrial structure to national spirit, if political structure is any index to that spirit. For, strange to say, it is in the great republic that economic despotism is represented by the Trust, and it is under a very strong

[1] Ashley, *Economic Surveys*, p. 405 *seq.*; *Report of the* 1902 *British Commission*, p. 11; cf. Marshall, *Some Aspects of Competition*, 1890: "The individual counts for much more in America than in English economic movements."
[2] Liefmann, *op. cit.*, p. 133; Vol. XVIII., p. 9.

despotism that the representative government of industry is maintained by the Cartels.

It is possible to circumvent this difficulty, and ascribe a national cause, only by placing a qualified meaning upon "individualism." If this is taken to mean a faster development in industrial methods, a readier discovery of new possibilities due to a national concentration on business, it might be possible to maintain that the more individualistic nation had found the advanced method sooner. This might then be the meaning of Professor Marshall's assertion that Americans have striven to master the Joint Stock system, rather than be mastered by it;[1] or the claim made in the American Census for 1900, that America is freer from the bonds of custom and tradition in industry than any European country, and readier to try new schemes. A case might be made on such grounds. But it is doubtful if, for example, it would be held by Marshall that the Trusts represent a mastery of Joint Stock; in any case, such a meaning would be badly implied by the term "individualism." National temperament is therefore not a safe comparative cause to ascribe. The megalomania of American ways of thinking, on the other hand, has rather legendary evidence.

Nor does evidence bear out Liefmann's view that Trusts are the result of the hasty development of America.

"Complicate relations do not go well with the young, coarse, and less developed civilization of America;

[1] "Traditions and experience are of more service and authority in an old country than in one which has not yet even taken stock of a great part of her natural resources. . . . In England the dominant force is that of the average opinion of business men. . . . In America the dominant force is the restless energy and versatile enterprise of a comparatively few very rich and able men who rejoice in that power of doing great things by great means which their wealth gives them. . . . They strive to dominate it (the Joint Stock system) not be dominated by it." (*Aspects of Competition*, p 16.)

Germany has an older and more peaceful development. In America, company undertakings have been from the first more frequent than in Germany, hence the tendency there was much slighter to maintain the individual producers as the Cartels do. America went straight to Fusions."[1] America has expanded rapidly, and there has been a rush to control the sources of supply which may have caused some trampling that deserves to be called "coarse." But there is not a great deal in this view if, as Liefmann believes, the Trust represents a higher order of civilization in industry, for the coarseness or otherwise of a development is judged in part at least by its outcome. And the evidence is incorrect. America did not go straight to Fusions; many Trusts were preceded by attempts at pools, as in Whisky, Cordage, and Salt. Even the Standard rose out of a "Central Association." In both countries the coal combines have retained the principle of the pool or vend just as in England. The overwhelming majority of the Trusts were formed since 1897, not during the most rapid development of America after the Civil War. The sense in which it is true that America went straight to fusion, is in that her national combinations were rarely preceded by local combinations, as the national Cartels have in most cases resulted from regional associations or syndicates.

There is, however, one aspect in which national spirit on the Continent may be regarded as akin to the form of industrial development. This is the military aspect. When we compare the drill and discipline to which firms subject themselves in the Cartel, with the greater suppression of individuality in the Trust, the explanation suggests itself that it is the military spirit which has enabled German industry to operate under Cartel con-

[1] *Op. cit.*, p. 133.

ditions; and this explanation has been often advanced. "Well trained military men," one of our Consuls[1] remarks, "are the best organizers even for industrial and commercial undertakings. . . . The army is the finishing school for practical life." Weight must be allowed to this consideration, which affects not only industrial structure, but possibly also the national attitude towards the claims of Socialism.

The most striking fact in the history of industrial combination when comparatively studied, is the more cautious and even hesitant manner in which Cartels have been organized. This has more than one aspect. We find that Trusts take national dimensions far more readily than Cartels do. This is true both of English and American "Fusions." But the Cartels begin by being local or regional as regards their sphere of influence. The grouping is carefully built up from the less to the more imposing structure. We find that in many cases the local Cartels are not eager to take national form, or prefer to take this form by a slow succession of steps. As national prepare the way for international Trusts, so do regional for national syndicates.

"In Germany amalgamation chiefly took the form of syndicates, which were considered the least objectionable among various possible forms, because they promised to bestow the benefits without producing the hardships of trusts—for syndicates paid regard to the existence of small firms, which were welcomed as members if they were willing to join. But syndication is drawing ever wider circles; the small local syndicates are combining amongst themselves and forming new syndicates embracing a larger area, and these greater ones are establishing understandings and combinations between

[1] *F. O. R.*, 2046 (Germany), pp. 8–9.

themselves. To-day it looks as if the smaller syndicates had unconsciously been only a means to the end; it was their task to effect an understanding between the individual local competitors. Once the individual has been wiped out, understandings embracing an increased area are more easily arrived at between the directorates of different syndicates."[1]

Thus the Westphalian and Silesian Coal Cartels compete strongly in the contested zones of the home market; but show no tendency to unite with each other or some smaller Cartels in the South. The Westphalian Cartel has limiting agreements with Belgian Cartels, but no common organization. In the coal basin of Charleroi in Belgium there are four Cartels, two for coal generally, two for special classes of coal, and two of which are syndicated; but the proposal to unite them in 1897 into a common Syndicate was abandoned through the opposition of the strongest of the parties.[2] There are five coal basins in Belgium, all of them Cartelled, but no tendency toward a Belgian Coal Cartel, the limiting agreements with Germany being sufficient.

There is the same hesitancy with regard to the internal control of the Syndicates; Cartels for special goods are not so ready to come into a general Cartel. The Steel Cartel has even now not completed the organization under its control of "B" (or finished) products; the Trusts are more confident in their powers of standardization. No doubt this is due in some degree to the fact that individuality is maintained by the Cartels, which must exercise a backward pressure on qualitative output, rather than a forward one on quantity per unit of cost; yet the evidence is abundant that, for other causes too, a slight

[1] *F. O. R.*, 3445, p. 64; cf. 3153, p. 37; 3221, pp. 62–3, 72–3.
[2] de Leener, *op. cit.*, p. 233.

organization was for long preferred to a bold one. Thus Liefmann dwells as frequently on the industrial retardation as on the preparatory function of Cartel development.[1]

It is further to be noted that, even when Cartels take national form, the national combination is often slighter in structure than the local ones; being rather of the nature of a working agreement between regional Cartels, than a firm combination under common control. This is, as we have seen, in accord with general ideas of productive efficiency, and is parallel to what takes place on the international scale between national Trusts. The strong Trust structures are national, not local or international; the strong Cartel structures are regional. Contracts between combinations serve, for the Cartels, ends which Trusts gain only by fusion; and this of course suggests comparisons of the law of contract under which either system exists.[2]

This difference is the more striking if we consider the width of the American as compared with the German market. It is in a wide market that we look for local combination; in a less wide one for national combination. And yet the comparison of physical, like that of political structures seems to give a paradoxical complexion to industrial evolution.

There are several causes for this difference. Of the two ways in which it can be looked at, it seems most reasonable to ask, not why there are not Trusts on a great scale in Germany, but why there are not strong Cartels in America. For if other things are equal, the system chosen will naturally be that which least sacrifices the independence of producers.

[1] Cf. Walker, *op. cit.*, p. 140.
[2] Cf. Sayous, pp. 116–7; 121–2; 325–7; 358–62, for the history of the Cartel development.

The first comparative cause is connected with tariff policies. We have seen already how these operate in general. In over-protected countries, the tariff offers both a cause for excessive competition and a means of remedy; in simply protected countries it offers neither; in free countries it is the foreign tariff which is the cause, and the differential producing advantage which is the source of remedy. The simply protected country is the least favourably placed for combination on a tariff basis.

Now Germany, as we have seen, has in staple industries sought the scientific system of protection; there has not been a great necessity for defence, nor a great reward to combination; widely separated competitors have not been helped to encroach on each other through the overcoming of freight charges by tariff subsidies; and the regulations regarding the "finishing traffic" have further aided the nominal tariff policy in this direction. Thus extreme competition has been kept on a local rather than on a national scale; but when local competitors combine, the method of representative government is possible in industry. An assembly of the producers is competent to discuss the local market, and they are near enough to meet for the purpose regularly.[1] As the local Cartels become in turn Cartelled, the representative principle is naturally weakened, and we obtain less compact structures. In the case where a German Cartel was undoubtedly due to a high tariff—that of Sugar—it took national form, and fell with the Sugar Convention. The National Steel Cartel arose at a time when the tariff was being revised and made more effective.

America has been over-protected, there has been a cause for excessive competition, and an obvious remedy for it; the scale of competition has been made national;

[1] Cf. Webb, *Industrial Democracy*, p. 53.

and when scattered firms or centres unite, the representative principle is not the obvious remedy. It is at once less possible and less desirable. The producers are not near enough ; and even if they were, the risks of a national market cannot be so easily submitted to the chances of party government in an assembly. Such a market requires a free directorate which can act quickly.

English combination takes the Trust form, in spite of the intense localization of such as the Bradford Associations, a localization the more intense when the width of their market is considered. It is this wide market which makes the Trust form necessary. An attempt to keep the deliberative assembly led to hopeless failure.[1] If national unions need a directorate which can act quickly, this is more true of those whose market is international. And it is the free countries which export.

A second comparative cause may be called the "momentum of the start." A good deal of German cartelling in iron and steel is the historical result of the policy of certain powerful coal combines operating in their own districts. The "*pain noir*" of industry spread its cartelling influence like a leaven through the higher levels. The evidence of this is now so ample that it need not be quoted. The "higher" industries were forced to adopt an attitude of passive resistance by forming themselves into purchasing unions ; many so-called Cartels are still on this level, and are not syndicated at all. But when a closer union did develop, the occasion was a local one, and the deliberative gathering evolved into a higher form of itself. It is to be remembered also that, not only does monopoly breed monopoly, but its species also breed each other. Cartels are imitated by Cartels and Trusts by

[1] *v.* below, p. 162 note 3.

Trusts. Retaliation or imitation is apt to be in kind. The authorities for this spread of the movement are numerous.[1]

But the nature of public opinion, as reflected in the law, has been a third, and perhaps the most important, condition. This has had, comparatively with English and American statutes, both a positive and a negative effect. Positively, it has caused agreements between producers, who do not sacrifice their independence, to suffice so far as the fear of legal intervention is concerned; for the law will recognize these agreements as valid,[2] and has maintained them even in cases where the Cartels in coal were forcing the advantage of their bargaining position and compelling manufacturers to take delivery of coal when the iron and steel market had begun to fall. In England and America such contracts will not be maintained if restraint of trade is held to have been proved. It may not be easy to prove it, and pools have existed in both countries, and Cartels in Austria, in spite of the law. But their instability is due to the contrary action of the law, that if any one breaks the pooling agreement he will not be held liable to criminal or civil procedure. Thus while the German Coal Cartels have endured for a long period and show every prospect of lasting, the history of Anthracite Coal in America has been one of dissolution and reorganization, since forfeits could not be legally collected.[3]

But while the German law has acted positively in strengthening Cartels, it has acted negatively also, by its close scrutiny over the formation of companies, and the activity of the promoter or financier. It demands an absolute publicity as to the valuation of assets at the

[1] Liefmann, pp. 155–6; and in *Krisen und Kartelle* (1902); Sayous, pp. 364–6 and *passim*; *F. O. R.*, 3042, pp. 28–31; *American Commission*, Vol. XVIII., p. 101.

[2] *American Commission*, Vol. XVIII., p. 164; Vol. XIX., p. 606.

[3] *Quarterly Journal*, Vol. X., p. 296 *seq.*

formation of a company, and no company can start until all the capital is subscribed; the directors are civilly and criminally liable for failure to show that shares not issued for cash are worth the amount for which they are issued; and a chief handicap on such facilities for promotion as exist in America or England lies in the method of the "simultaneous system," under which the promoters must make themselves responsible for all the shares before they are issued, so that their profit must depend on their power to issue these at a premium, and therefore upon the credit of the company. The provisions to prevent the wrecking of the company, or the manipulation of shares on the Stock Exchange, are equally strict.[1] So far, therefore, as distant producers must await the intervention of the promoter, the tendency to a national Trust is lessened; for people will keep their individuality if they can, and local producers have a method by which they can do so. The fact that the law is national is also of importance; for there is no such system as in America, by which the codes of the different States compete to attract corporations by weakening their statutes.[2]

The law, the tariff, and the momentum of the start thus appear to be the main causes why Germany has found the Cartel principle sufficient; and why in many important cases the Cartels remain regional, and do not have a national organization positively undertaking the management of the operations of the parties to the union.

[1] *v.* Schuster, *Economic Journal*, X., pp. 1–19; *American Commission*, Vol. XVIII., p. 13, and XIX., p. 639. Cf. *F. O. R.*, 2046, p. 9: "The professional promoter or underwriter, as known in England, is conspicuous through his absence in Germany."

[2] It is said by the Commission that a Federal Law would strengthen the Trusts by making their incorporation national, and that they have probably been kept in check by the necessity of incorporating in States (Vol. XIX., p. 645). But an important factor would also be eliminated, since a Federal Law would not compete with any other code, and would be able to maintain its conditions.

While the two structures thus develop by different steps to different final results, the statement of Grunzel that they are different in kind is perhaps an exaggeration. He supports this view by the statement that in no case in Europe has the Trust developed out of the Cartel; which neglects the history of the Thread Trust in England, to say nothing of a number of Trusts in America. In addition the Syndicate or fully-developed Cartel is a union of the simple Cartel with a joint-stock company similar in general features to the central management of the holding-company form of a Trust; and structures which may be combined can scarcely be at complete variance. But again, it is possible to trace, between the pure Cartel and the Trust, many intermediate stages which give a continuity to modern business methods, which is more desirable to keep in view than to emphasize the difference of extremes.

The marginal cases will be—from the side of Trust structure, that of a holding company which has not a great majority of the stock of the companies controlled, which maintains the nominal independence of the firms, is unable to gain further control of their shares, and unwilling to provoke the minority holders, or the public authority, by too great an exercise of voting power; from the side of the Cartels, the cases where, with an agreement for a long period,[1] into which some parties, or the parties on one side, have been practically compelled to enter, the Syndicate is comprised of shareholders distinct from, or only in part composed of, the producers controlled by it.

There will always be two theoretical points of difference between the structures, however much obliterated in practice. The Cartel is an agreement for a time, the Trust is

[1] The period of agreement is constantly being lengthened; one important combination is for thirty years.

a permanent structure; the former is therefore a factor in industry full of speculative possibilities, both as regards its actual operation, and because the "residual" competition of parties who break away at the end of the period is considerably to be feared. In the Spirits Union of Germany some distillers, who were unwilling to give up their independence for the full nine years, had to be admitted for one, two, or three years; their attitude thereafter being quite uncertain. Again, the Trust is a company through and through, even when it is only a merger; the Cartel is fundamentally the taking of an oath among producers, an association without prejudice to individuality, and the Syndicate of the most developed Cartels supervenes on and is supported by this fundamental bond.

We may proceed to examine the structure and operation of the developed Cartel-Syndicate.[1] The complexity is so great and details change so rapidly, that it is necessary to determine for ourselves some type or standard, variations from which can be noted. This we may call the "pure Cartel," and it is fortunate that such a standard can be set up not only from analytical reasoning but also by induction from the facts. For the most important Cartels have a structure which it is fair to regard as typical. We may then consider the tendencies toward variation from this type, and observe in what respects these cause an approximation to or further departure from the structure of Trusts. We shall find two results of this variation; one which weakens the principle of the pure Cartel, and approximates to that of the holding company, by the introduction into the Syndicate of parties who are only partially interested in its operations; the other which at the same time, and

[1] In the following pages, I am indebted to Reports of the official Inquiry on the Cartels, which was instituted a few years ago in Germany.

for the same cause as the former, increases the freedom of the Cartel directorate, at the expense of the method of representative government in industry. And thus, varying from the pure Cartel, we obtain types which tend toward the marginal forms of Trusts.

The principle of the pure Cartel is compensatory action. It is an organization in which certain producers deal with themselves, and exist for that purpose in a double relation; they are producers of goods, and purchasers of their own produce. What they stand to lose in one aspect they stand to gain in the other. The mechanism is, in general terms, such that the producers who sell their output to the Bureau or Syndicate are also the exclusive holders of the share capital of the Syndicate. Thus the following are "pure Cartels"—The Westphalian Coal Cartel, the Belgian Iron and Coke Association, the Belgian Coke Syndicate, the Belgian Raw Sugar Syndicate, the German Steel Cartel, the last, however, only as yet so far as "A" products are concerned. The predominant position of the first and last of these makes the pure Cartel an important structure. Because of the compensatory principle, the pure Cartel is similar in internal structure to the co-operative more than to any other industrial organization.

The operation is broadly as follows. The members of the Cartel, meeting as producers in general assembly, determine a price for their product which covers cost of production, being in fact practically a competitive price. This is the base or normal price (*Richtpreis*). Thus they assure themselves, in this capacity, of adequate remuneration. They then sell to the Syndicate, that is to themselves as members of the Syndicate, for what is called the "taking-over" or "accounting" price (*Verrechnungspreis*), which is usually on the average higher than the base

price, so that they have now created for themselves as producers a "Cartel advantage." The Syndicate then resells to the consumer, for a price which will be as high as it can get, but which varies with the competition to be met in different parts of the market; this price (*Verkaufspreis*) may not in some cases be so high as the taking-over price, or may not exceed it by more than the margin necessary to cover the Syndicate's expenses of management. The aim of the Syndicate is, however, not to sell below the taking-over price, not even, in the case of the Steel Cartel, in the foreign market.[1] It is clear, however, that sales below the taking-over price, though they cut into the Cartel advantage, are still remunerative provided they do not take place below the base price.[2]

The Syndicate as such loses by sales below the taking-over price, and makes good this deficit by a levy on the firms; when sales are made above this price, in uncontested zones of the market, the companies whose output is thus sold receive an addition to the Cartel advantage.

But what end is served by this double structure? Why is the taking-over price thus made to stand between the base and selling prices? Why need the selling bureau be registered as a company? The Syndicate of the Westphalian Coal Cartel, for example, has a registered capital of 900,000 marks, all the shares being held by the producers themselves, and not being transferable. "Sont seuls actionnaires les intéressés; il n'y a dans la société aucun élément étranger."[3]

The Syndicate serves to give to the Cartel contract a stability not obtained merely by a selling agency. It creates a legal personality which can enforce, under the

[1] *F. O. R.*, 3221, p. 76; Kollmann, p. 24.
[2] Raffalovich, pp. 407, 416; Walker, pp. 73, 175–8.
[3] Sayous, p. 82. So of the Steel Cartel, *v.* Kollman, p. 18.

German law, the carrying out of the Cartel contract to deliver the total output to itself, and which can form legally binding contracts with other organizations. But it offers also to the producers a certain protection from the public jealousy of monopolies. By its nature, it pays no dividend; its accounts are exactly balanced, with or without the levy which makes up for sales below the taking-over price. It is the Syndicate which figures in the public eye; and while it itself offers no sign of monopoly profit, it shelters the companies which gain by its handling of their goods. It conceals monopoly dividends. The constituent companies pay their varying dividends, some high and some low, so that there is nothing for the critic to fasten on and indicate as monopolistic. Even the weaker companies in a Cartel-syndicate have this use, that, as their dividends are low, they turn the edge of the jealousy which attaches to monopoly, and cast doubt on the monopolistic nature of high dividends elsewhere. Thus one of the dangers of the Trust structure is averted; for the Trusts are often driven to conceal their real dividend, which is one and can be indicated, by over-capitalization.

The difficulties connected in the Trusts with capitalization are paralleled by the Cartel problems of "participation." "Participation" in the Cartel corresponds to "capitalization" in the Trust. This is the result of the fact that the Cartel does not buy up the constituent companies, and must reckon their value in other terms than capital. It takes output as the basis, and throughout the structure voting power depends on this. Both in the general assembly of the producers, and in the committees of the Syndicate, a vote is awarded for each 1,000,000 tons or 100,000 tons of output, as the case may be. Over-participation is the difficulty which corresponds to over-

capitalization; the participation system has also new problems of its own.

Participations in the Cartel are fixed by reckoning the capacities of the firms to produce under competitive conditions, just as capitalization is fixed on earning power under those conditions. The Cartel then makes a reduction in participation all over, which is proportionately distributed over all the producers of the same class of goods. But just as the firm, in selling to a Trust, seeks to place the highest possible value on its fixed capital and earning power, and to present its actual position in the most favourable light, so does a Cartelled firm act with reference to its output at that period. Thus if capacity is reckoned on output for a certain period before the Cartel is fixed, or at the time of formation, or at the time when it is being induced to enter a Cartel already formed, the firm will inflate its nominal output at that period by loading itself with orders even at losing prices, or by obtaining control of hitherto unexploited resources of quite indefinite capacity; or the participation will be excessive if the Cartel is formed on a rising market; or if on a falling market, when participation is reckoned by averaging the output during the years of decline. Thus when the Cartel begins to operate it cannot support its participation at remunerative prices, in view especially of its inability to close some firms and run the others full.[1]

Thus when the Westphalian Coal Syndicate began to operate in 1895, after a year of preparation by the parties to it, it was found that the constituent mines had formed long contracts in the interval, in order to increase their

[1] Various compromises are often made in reckoning initial participations, as in the Wire Nail Pool (Ripley, *op. cit.*, p. 51), or the Rhine Shipping Association. *F. O. R.*, 3221, p. 68.

participations; as a result of which, when the Cartel had been formed, some of the mines are said to have been producing to their full capacity, without, however, being able to reach the limit of their reduced participation, while others were arrested by the reduction. This Syndicate placed itself at a special disadvantage by granting an automatic increase of 1000 tons for every new shaft sunk, a clause which has since been repealed. It had to face the same problems again when it integrated the dealers and the Rhine coal shipments. Similar facts are recorded at the foundation of the Steel Cartel.[1] As a result, the participation question is said to have become one of the most difficult for the Cartels; some of which have been compelled to abandon the method of proportionate reduction in favour of an agreement settled by friendly conference.[2]

Even when these difficulties of participation are overcome at the formation of a Cartel, there remains within the structure a continual pressure due to the same force. Each firm wishes to have its participation revised and increased. Whereas the Trust has to subsidize enterprise by premia on invention and the method of comparative accounting, the Cartels must find a way to keep enterprise in check. The Steel Cartel, profiting by the lessons of the Coal Cartel in this matter, makes an absolute fixation of total participations for the period of the agreement. But in most cases it is by the system of penalties and indemnities that the restraint is imposed; each producer being fined for an excess of output, and receiving an equivalent indemnity per unit of deficiency. A strict monopoly policy would require a fine on deficiency no

[1] *F. O. R.*, 3221, pp. 65, 68,73; cf. 3390, pp. 11. Sayous, p. 126: "Pour rallier les dissidents qui devenaient gênants, il fallut leur accorder des participations énormes."

[2] Sayous, pp. 88, 96, 100; de Leener, p. 160; Raffalovich, p. 406.

less than on excess, if the total output is to gain the maximum net revenue. The fine system must be taken as a guiding principle rather than as a strictly scientific part of the structure.

The danger of over-participation is greater than that of over-capitalization, so far as the possibility of a price policy is concerned. For over-participation lowers price, and defeats the purpose of many Cartels; but over-capitalization, so far as it affects price at all, tends to raise it, or to keep it up to a high level. The internal strain of a Trust is due to the pressure of premia on invention, which tend to increase output, against the high capitalization, which can only pay a normal dividend if price is kept high; that of a Cartel to the swelling of participations against the Cartel price.

But the participation system has new difficulties of its own, arising from the attempt to apply the "method of the common rule" to producers of unequal productive efficiencies. For two producers may have equal outputs at the period stipulated in the agreement under which the Cartel was formed, but may not be able to undertake the same percentage of reduction with the same change in cost; and if no allowance is made for the elasticity of supply the restriction will weigh unequally upon them. Inequalities in productive efficiency are bound to remain in the most carefully formed Cartels, yet the method of proportionate reduction of the total participation seems necessary for practical convenience. The natural result is that some firms buy up others within the Cartel, close them, obtain their participation, and run full on the strength of it. But this is a considerable risk to undertake for the sake of a temporary agreement—to saddle a strong firm permanently with a less strong one. There is introduced, therefore, into the "pure Cartel," under the

participation system, an instability which will endure until or unless the Cartels can make arrangements for estimating reductions whose complexity almost debars their serious consideration.[1]

As a result, we find two tendencies within the Cartel. There is, first, a continual and often considerable variation from the (restricted) participation allowed to a firm at any time; according to the law of supply, this may be by way of either an excess or a deficiency. It may be worth while to exceed the participation and pay the fine, in cases of decreasing cost; or to fall short of it and receive the indemnity in cases of increasing cost.[2] The other tendency is for amalgamation of interests within the Cartel. The proportionate reduction in output will then apply only to the sum of the fused participations, not to each of them individually; and it may pay to shut down one plant entirely, and run the other to the fullest capacity allowed.

The latter tendency nurses a Trust within the shelter of the Cartel. It is viewed, for this reason, sometimes with alarm, often with satisfaction. In the Westphalian Coal Cartel the number of firms was thus reduced in one year from 100 to 88; in the French Iron Syndicate from 25 to 11. In the former case the four largest firms came to control 30 per cent., the six largest 60 per cent., of the output, and therefore of the voting power. Were such a Cartel dissolved, it would leave behind it as its work a strongly-placed fusion of interests. The same result, during the life of the Cartel, is often obtained by a union of firms in order to sell to the Syndicate a joint participation which they can arrange between themselves.

[1] *Vide* Walker, pp. 82 and 152–8; Sayous, p. 84; Kollmann, pp. 13–14 and 25; *F. O. R.*, 3221, p. 68.
[2] Raffalovich, p. 405; Sayous, p. 89.

These *Verkaufsvereine* create voting Trusts, but not permanent industrial Trusts.[1]

Liefmann believes that this process of fusion will go on, and that it represents the vitality of Natural Selection within the Cartel. But he suggests that, when the less strong firms are thus bought up, the danger of administrative despotism by a few large corporations in the Cartel will be averted, if the process is placed under the supervision of the Syndicate, and not left to private transaction; that is, as I understand, if the participation which is bought up is distributed among several companies, and not added to the output of one only. The policy has one danger. When one firm in a Cartel buys up another, it is not tempted to do so at an inflated price, since it does not control its own selling price; but if the Syndicate comes to take part in the buying out, by borrowing the capital from the firms which remain, it is apt to do so at an excessive price, since it can charge on selling price the burden of capital thus created; and this is the thin end of the wedge of another Trust problem.[2]

The tendency towards standardization of the product, which we have seen to be a precondition of large organization, acts somewhat differently as between Trusts and Cartels. Ostensibly the Cartels seek to retain that individuality which the Trusts at first repress, and thereafter stimulate by various premia on new methods. In a Cartel, the pressure will be backward rather than forward; it must repress qualitative variation, while, like the Trust, encouraging quantitative output per unit of cost. The Trust, because it is a Trust, can direct its firms as to their qualitative output; the Cartel, being a Cartel, must purchase what the firms produce. Extractive

[1] For facts *v.* Sayous, 86–7; *F. O. R.*, 3221, p. 57; 3390, p. 11; 3445, p. 66–7 and 71; Raffalovich, 409–10.

[2] Kollmann, p. 18. The Steel Cartel is thus allowed to purchase.

industries, where qualities are rather given than made, enhance the difficulty of standardization. How is a Cartel to maintain the allotted participation, if qualities act on the demand, and the demand does not maintain the allotment?

The Cartel acts as an "evener" of the demand in various ways. It can refuse further orders entirely, when the allotted output of a firm producing goods of a certain quality is reached, thereby forcing the sale of other qualities; it can refuse anything but a joint supply to the wholesalers, selling special qualities only if full quantities of other brands are taken up at the same time; or it can make the price excessive, for qualities whose participation is difficult otherwise to hold in check; or it can "debaptize" the goods themselves, changing the names of certain qualities when sold, thus "charging on a few producers the consequences of the general situation." These are evident methods of "evening," and they exercise a backward pressure against qualitative variation.[1]

Cartels as a rule have the advantage of more expert knowledge in the directorate, which is acquainted with the business, and elected by the assembly of producers, not appointed by a promoter. This is certainly an advantage of representative government. On the other hand, it has been said by Schmoller[2] that only a limited directorate, free from the shackles of technicalities, can take a long view of the market, especially since Cartel influence on other Cartels has to be considered; and it appears that in fact the control tends to leave the hands

[1] Sayous, p. 93; Walker, p. 183; *F. O. R.*, 3221, pp. 64, 66; and 3153, p. 52. "When a member has sold 40 per cent. of his quota, further sales by him can be effected only on condition that the Syndicate is empowered to substitute the particular brand sold, by that of some other member of the syndicate."

[2] In the *Inquiry*, *v.* Raffalovich, p. 414. Herr Kirdorf was of the same opinion (*ibid.*). *F. O. R.*, 3221, p. 57.

of the assembly and pass over into those of the directors of the Syndicate. This directorate is apt, therefore, to develop an independence of its own, as in the Cellulose Cartel. One of the directors reported to the Inquiry that the Westphalian Cartel was a parliament, only it argued less than most parliaments. Possibly the assembly meets rather to sanction than to initiate policies.

Again it is clear that the expertness of Cartel directors, and their relation to the producers, involve some of those dangers of corruption which belong to representative institutions. These directors have themselves been, or may yet be, connected with some of the syndicated mines in the Cartel; and special parties will seek to influence them on behalf of their old or present associates. Herr Kirdorf, one of the directors, has himself recognized this, and admits the custom of seeking higher prices by influencing friends on the directorate; such practices as the debaptizing of qualities can be used to cover this influence, since under the pretext of uniformity certain producers can be made to bear more than their share of the evening process.[1]

Representative government is more liable to internal dissension than is probable under a small directorate. The strongest Cartels have had, in the assembly, distinct parties and distinct party politics, which do not make for the stability of a policy and are open to great abuses. Thus in the Westphalian Cartel there have always been

[1] Sayous, 87: "Plus on étudie les Cartels modernes, plus on s'aperçoit que la grave question pour les comptoirs est de trouver de bons directeurs, et qu'il faut laisser libres dans leur mouvements ceux qui sont dignes de confiance."

Walker, p. 183, quotes Kirdorf: "I will not conceal the fact that many influences make themselves felt which all aim to set the price (of certain brands) as high as possible. The individual representatives of the mines go to the individual executive officials of the Syndicate, and seek to influence them," etc. Cf. Webb, *Industrial Democracy*, p. 52.

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two great parties divided on the question of price policy, whether to exploit the market or to take longer views. The same has been true of the Coke Syndicate. It was the predominance in this Cartel during 1898–1900 of the high-price party which led to the much-discussed policy of making prices high in a falling market, although the rival party was able to secure a compromise by reducing the rise of from 14 to 20 marks to a steady price of 17.[1] Again, in the Westphalian Cartel there are two parties on the question of participation, and the policy of the Syndicate in evening the demand to the allotments. We have seen also how the smaller and the larger mines have found their interests naturally opposed, so that the former have combined within the Cartel for output, and may therefore combine for a voting Trust; as well as how dissident members have sometimes had to be retained by the concession of enormous participations. "The Westphalian Coal Syndicate," says M. Sayous, "is almost omnipotent; its internal quarrels are more menacing than outside competition."[2] These are distinctively Cartel problems. In some Trusts, the attempt to maintain the representative principle by making the joint directorate the sum of the old directorates has apparently led to the same cumbrousness and instability; so that Schmoller's remark is probably correct.[3]

The tendencies which have been noted above are such

[1] *Inquiry*, Question 9, *v.* Raffalovich, p. 421; Sayous, p. 91. For the Coke Syndicate, Liefmann, *Krisen und Kartelle* (1902).

[2] Sayous, p. 360.

[3] Cf. the following account of the directorate of the British Calico Printers' Association: "It was indeed a sight for the private trader—a mob of eighty-four directors with no real authority, another mob of a hundred and fourteen vendor-managers who kept on competing with each other out of ignorance or trade jealousy, and custom slipping away while the two mobs raged furiously together." (*British Industries* (Ashley), p. 224.) The Steel Trust had twenty-four directors. The Standard has fourteen. The Steel Cartel has five.

as appear within the standard form of the Cartel; and some of them, it is clear, throw their weight in the direction of Trust formation; especially important in this respect are the buying-up processes which the participation method leads to, and the growing desire for greater freedom in the directing body. Although, therefore, the standard or "pure" Cartel is represented by the most important of such organizations in Germany, we find also that there are variations from this type in other industries, and that these variations lead us directly toward the marginal forms of the Trust as described above.

These variations are produced in proportion as there ceases to be a complete community of interest between the Syndicate and the producers, that is to say, in proportion as the Syndicate comes to include members who are not also producers, so that there is an antagonism of interests, and the compensatory principle ceases to act without qualification. Or again, they are introduced when the agreement ceases to be completely voluntary, and when some of the parties are coerced into it, thereby losing to a great extent their individual bargaining power, and being liable to dictation within the Cartel when it is formed.

We may take as an example ot a first variation the German Spirits Union of 1899; for in it there were mixed together the pure Cartel principle and the features of a Trust. This organization included the distillers, the refiners, and those who both distil and refine spirits; but it was formed mainly on the initiative of the distillers, who were able to coerce the refiners by fear of losing the raw spirit; and even the distillers were under the control of a few of their more prominent leaders. The result is that, within the Cartel, the refiners do not occupy the double position of producers and buyers of their own

product; they have entered the union on definite terms of remuneration, and act rather as agents of the distillers, who supply them with raw material, instruct them how to sell, and grant them a commission for refining the spirit; their loss of individuality being, for the time, almost as great as that of firms under a Trust directorate. As between the distillers and the Cartel, however, the pure principle remains; they buy their own raw spirit and sell it to the refiners or in the market for a Cartel price. And again, some distillers are also refiners, so that the interplay of their interests is complex. The important feature of such a structure is the growing differentiation of the Syndicate. It becomes a company which desires to have a dividend to its members, the distillers; those members of the Cartel who are not within the Syndicate, the pure refiners, contribute to this dividend, because the Syndicate has enforced their position as mere agents, and tends to assume the status of an independent company. So important has its independence become that, according to the Consular Report, the undertaking scarcely differs in its broad features from a Trust.[1] But the agreement is for nine years only.

A further detachment of the Syndicate from the members of a Cartel took place in the great Sugar Cartels, which have now been dissolved. Their structure was such that the refiners granted to the producers of raw sugar a fixed and invariable price; but as the selling-price varied from their "taking-over price" the difference was a concern of the refiners alone, who were the undertakers of the whole risk. The only remainder of the pure Cartel principle was within the circle of the refiners themselves, or in the case of those refiners who were also producers of raw sugar.

[1] *F. O. R.*, 2523, pp. 6–8; Vol. XVIII., pp. 153–4.

The distinctness of the Syndicate becomes greatest when its shareholders cease to have any double interest at all; that is, when they become practically managers and directors of the activities of the firms. Thus it is frequent in Germany for Syndicate directors to be bankers, whose interests are financial rather than industrial; for example in the Cellulose Cartel. In such cases the whole principle of representative government, and its corollary of compensatory action, is swept away; the producers who have been persuaded to come for a time under such control receive only an interest in sales according to a fixed scale of prices. Thus there is realized the hope of Professor Schmoller above referred to, that the complete freedom of the directorate from the trammels of popular control might leave them free to estimate, not only the market for the goods of the Cartel, but also the national market as affected by the price policy of the Cartel.

This growing freedom of the Cartel directorate will obtain for the Cartel that flexibility whose absence from the pure structure has been one of the main grounds of criticism, for example, by Liefmann.[1] And if it is carried out without too great a sacrifice of the merits of the Cartel system, it will in fact give to this system some advantage over the Trust. For if the Syndicate is relieved of the shackles of constant and irritating criticism, and if at the same time the firms maintain a certain independence as regards their own affairs, the directors will be freer to attend to general market conditions than Trust directors are; for there falls on the latter the invigilation of managers, and many details of internal management of firms. This advantage is now directly claimed for the Cartels. They must get off the hands of the directors the ceaseless negotiations and meetings, so that they may

[1] *Op. cit.*, pp. 131-4 and 190-2. Cf. *F. O. R.*, 3221, p. 57.

attend to the social aspects of industry, and the general interests of their trade.[1]

The most striking example of the retention of individualism within the Cartel, and of an operation which the directors neither force nor require to supervise in detail, is the method of exchange of group participation in the Steel Cartel; this method accomplishing, by the normal operation of self-interest, what is brought about more abruptly in the redistribution of Trust firms. The owners of steel works may exchange with each other their participation in various classes of products, thus gradually specializing these classes in the hands of different producers; provided only the total participations of the firms, reckoned in raw steel, are not increased, and that no firm shall take participation in any class of products of which it has not hitherto been a producer at all.[2] These organic changes proceed within the body of the structure, so as to retain many of the advantages of competition within the general but not detailed control given by combination.

In spite of some, and as a consequence of others, of the developments we have traced or suggested, the possibility of the Cartel as a final structure is being recognized; and the idea that Cartels are preparatory only, a softening of the transition to Trusts, is waning in authority. The great danger which attends the relaxing of the representative control is that of promotion and the interference of "Wall Street" problems; for as the Syndicate becomes freer, it tends to bring in directors who are not also producers, and hence to exploit the producers. But on the whole, the Continent, which formerly envied the Trust, is becoming content with the Cartel, and even prefers

1 Kollmann, pp. 16, 49.
2 *F. O. R.*, 3221, p. 26; Kollmann, p. 23–4.

it.[1] One can look forward therefore to the development in some countries of organizations at once less dangerous and less susceptible to public opposition than the Trusts. And if the law of the land saves the Cartels from the evils of promotion, they may be able to reconcile to their price policy and their "autoritatisme" a public opinion already infused with the ideals of discipline and regularity, and already reconciled to the methods of Protection in other relations.

[1] Kollmann, p. 16. For illustration of the argument of this chapter, cf. J. Lescure, *L'Evolution du Cartel dans la grande industrie Allemande de la houille et du fer*, in the *Revue d'Economie Politique* for May, 1906.

CHAPTER III

INDUSTRIAL COMBINATION AND LABOUR COMBINATION

In this study of industrial combination, little has been said as yet of the labour questions involved. We have considered the representative firm as the economic unit of combination; the analysis of its own internal structure has necessarily been passed over in an inquiry regarding the influences which affect it as a whole. In the following pages, it is not proposed to discuss the bargaining relations of employers and employees in any detail; for this belongs to another inquiry. But for at least two reasons it would be inadvisable to make no special mention of what may be called combination within the firm. In the first place, it is necessary to indicate how far labour combination and combination of firms can properly be regarded as co-ordinate aspects of a "general combination movement"; for the success of one form of combination, in spite ot legal obstruction, and of the discouragement of economic experts, must materially influence our attitude towards any other form which arises amid legal opposition and public distrust. In the second place, there is the simple fact that labour interests always claim special attention because they are labour interests. The Trade Unions may feel their case prejudiced if they are made to stand under the same rubric as the Trusts and Cartels; they believe that the claims of humanity, not merely of economic

tendency, are involved in their attitude, and that this is due to features of competition not directly analogous to those presented from the side of capital.

This contention is certainly well supported by a general view of the literature of Trade Unions as compared with that of Trusts or Cartels. For if we look to the apologetics of the Trade Union movement in order to estimate its broad significance, we find that the emphasis is on the aspect of bargaining strength; this is either the main, or the only, question that is strongly argued. The Trade Union movement, that is to say, implies that the combination is formed chiefly with a reference to parties who are outside it; it is against these parties that defence is to be obtained. On the other hand, as we have sufficiently observed already, the basis of Trusts and Cartels is in the phenomena of mutual and excessive competition, its wastes, and its fluctuations; the whole aspect of the combination is toward the actual parties who enter it, rather than toward outsiders; they seek mutual insurance against each other, rather than general insurance against exploitation.

Bargaining power and the mutual relations of competitors are, of course, not independent of each other; we have seen already that industrial combination relies to a great extent on bargaining power, and also that many Cartels are formed in defence against other Cartels. The question is of emphasis and original significance; the original motive of industrial combination was in, and its main concern was toward, the relations of the combining firms to each other under modern market conditions; defensive combination has been a secondary result. But the original and fundamental motive of Trade Unionism is in bargaining; the excesses of labour competition are held to be secondary to, and consequent on, a weak bargaining position.

This difference in emphasis is so marked that an

inquirer would be led to doubt whether a Trade Union could properly be regarded as a labour Trust or Cartel; whether the whole combination movement could be unified so simply as this. He would search the literature of Trade Unionism with the eyes of a student of the Trusts to find the familiar references to over-production, and he would find them either absent, or positively rejected, or employed in the detailed policy, but not in the general motive. On the other hand, searching Trust literature with the eyes of a student of labour combination, he would look almost in vain for analogous remarks on the tyranny of labour, and the inadequate economic status of capital as a whole when uncombined.

Yet although the advocates of either movement pleaded on quite distinct grounds of principle, our inquirer would find that high independent authorities implicitly or explicitly believed that the combination movement was a general one, deriving its significance wherever it was realized from the same broad causes, economic, social, or moral; that combination laws had been enacted to control both movements as in restraint of trade; that in some places Trade Unions had been compelled to adopt a less militant attitude toward Trusts, lest combination laws against the latter should extend to themselves also.[1]

What is usually referred to in economics as the general combination movement includes Trusts and Cartels, Trade Unions, and municipal or national enterprises. When these are focussed at one point of view, this is usually the Socialist point of view. On that attitude we shall dwell later;[2] so that from present discussion public enterprises may be excluded. In the argument concerning Trusts and Trade Unions it is necessary, of course, to consider only the purely industrial functions of the latter.

[1] Bolen, *Trusts and the Tariff*, p. 185.

[2] Part III., ch. ii.

The tendency to unify the combination movement appears in its broadest form in such a statement as follows. Although written as part of a study of labour combination, it could clearly be applied to any form of economic combination—

"There are many ways to social welfare, but all trend in one direction and at last they meet. And we now stand at the point where the unity of principle that has guided us all along is becoming clear. That principle is simple. It assumes that intelligence is better than blind force, and reaches its end more speedily and surely. . . . It holds that self-interest acts intelligently enough for self, but inasmuch as it totally disregards the welfare of others, it is to be regarded, relatively to that welfare, as a blind and often destructive force. It holds that, apart from the control of industry by the community for its own ends, there is no force but that of self-interest to impel and guide production, and that therefore the withdrawal of collective control leaves industry to the interaction of blind forces producing mixed good and evil, with no necessary tendency to progress, no pre-established 'economic harmony' between self-interest and the common weal. Accordingly . it advocates the substitution of such control for the present chaos of the economic world." [1]

Short of so high a point of view as is here taken, Trusts and Trade Unions are implicitly and explicitly connected with each other by various authorities. Thus Mr. Macrosty and Mr. Baker insert chapters on Trade Unions in their studies of the Trusts. Or we may collect an overlapping argument from different writers, who connect the two by a middle term. Thus Dr. Liefmann argues that the Trust and the Tariff are of co-ordinate economic significance, two ways of doing the same thing, supplementary to each

[1] Hobhouse, *Labour Combination*, pp. 53–4.

other, and therefore as a rule twin-born; while Mr. Lecky dogmatically connects Trade Unions with Tariffs as to their essential meaning, and this connection has been pressed in a recent discussion of the meaning and scope of protection in industry. He writes—

"One thing may be confidently said. It is that the policy of limiting and regulating labour which is now so popular; the policy of substituting, in all industrial spheres, administrative and legislative restriction for the free action of demand and supply . . . belongs to the same order of ideas as the Protectionism of the past. It is clearly akin to the old sumptuary laws, of embargoes, of trade regulation and monopolies, of strict commercial protection. The policy that would exclude foreign labour from England, and submit all English labour to Trade Union rules, leads logically to the exclusion of all goods that are made on the Continent by foreign labour and under foreign conditions. Free labour and free trade are closely connected." [1]

Again, there could not be a more sweeping destruction of the special meaning of Trade Unionism or of Trusts than is made in Mr. and Mrs. Webb's analysis of bargaining. Their authority with regard to the Trade Union movement is great enough to render important this attempt to hide its special meaning in a general *farrago* of private Acts of Parliament, patents, boycotts, tariffs, trusts, franchises, and consumers' associations; [2] they extend to other forms of combination, as their main motive, the problems of bargaining which they make fundamental for Trade Unions.

General statements of the combination movement, such as these, ought to be carefully examined. For there must, by the nature of the case, be similarity between one form of combination and another; but the underlying differences

[1] *Democracy and Liberty*, II., 383.
[2] *Industrial Democracy*, Part III., ch. ii.

may be more important than general similarity of outward appearances. The connotation of the mere idea of control, wherever this is brought about, must include these things at least; the aggregation of units into some kind of organization, and the entrusting of their direction to a few persons; a check on each individual unit, so that it shall not act contrary to the general interest; the creation of collective strength, so that the aggregate can deal as a unit with outside parties; the enhancing of bargaining power. But if, on this broad ground, we were to speak of Trusts as part of a "general combination movement," not only would we be liable to lose any special economic significance which they had, we might also have to generalize beyond the economic sphere; for common control has much the same features everywhere.

There is among the nations of the world a general movement towards military organization, and in its broad features it shows itself everywhere in much the same way. Some things are implied in any such organization at all; and a social reformer would see only these broad features, and the restrictions they imposed. But similarities in structure and organization might be far less important than differences in motive and final purpose, since some nations fight by nature, some for duty, some for patriotism, some for aggression or defence. The detail of conscription or no conscription, or the ratio of expenditure in various directions, might expose how international relations were quite different in each case, and how military organization in one place was not co-ordinate in significance with the same organization elsewhere.

An adequate examination of the question whether Trusts and Trade Unions were aspects of one and the same movement could take either of two lines. It might be considered whether they were to any extent historically

related as cause and effect, developed essentially in relation to each other. But this is of course an idle question. At least a century separates the rise of the two structures. And although they still have important interactions, these relations presuppose the question of origin and primary significance. The second line of reasoning is positive analysis of the structures. It is that which we shall chiefly follow.

To begin with admitted points of resemblance in motive, structure, and policy. First as to motive.

Both Trusts and Trade Unions are based on what has been called "the typical assumption of reformers in all ages; that social conditions can, by deliberate human interference, be changed for the better." They are both protests, that is to say, against the "natural system of individual liberty," if by this is meant, what has often been meant by it, the system of non-interference with independent self-seeking. The survival of the fittest, they alike imply, cannot be the highest economic ideal, since fitness is not necessarily measured by anything except that amalgam of efficiency, strategem, and resource which is inherent in the methods of independent competition; they profess that, in the end, well-directed combination can better overcome this than can well-directed individualism, however necessary may be the boycott or the strike for short periods. The philosophy, at any rate, of the "natural system" is abandoned, with all its confusions of the slippery term "natural." Combination is no less a manifestation of freedom, and has the greater possibilities of morality.

The appeal is, in the case of the Trusts, to the ideal of lessened risks, and the removal of those results which, in the words of one author, make competition resemble a mob rather than an army, and cause the supply of goods

on a wide market to be but little different from a gamble; to the idea of fair price; to the ethical aims of co-operation and the extension of its scope; to the power thereby to pay better wages and lessen the corrupt practices of trade. Even boycotts, as we saw in the case of the Birmingham alliance, justify themselves as a means to this end; much Trust literature is filled, like that of the New Trades Combination movement, with capital initial letters. On the Trade Union side, there are set forth all the ideals of democracy; the raising of workmen to better knowledge of their position, the equalization of status, the uplifting of the standard and improvement of the conditions of life and work; the living wage, the normal day, the standard rate.

As to structure. Each of them focusses risk, and bargaining power, and resource. They alike magnify the economic unit, lessen the negative, and enhance the positive relation of their members to each other. By open or tacit agreement they regulate the quantity supplied, the conditions under which supply takes place, and, to a varying degree, the amount produced of a commodity or service at any time and place. This is the lowest common denominator of all forms of both structures.

In regard to detailed policy there are many points of analogy. A Trade Union forbids its members to sell their labour below a certain price, or beyond a certain quantity in a given time; and a Trust aims at preventing over-supply in order to maintain a fair price. The base price of a Cartel is, like the standard rate, a minimum which individuals may if they can exceed. The standard rate is graded according to qualities of labour, or local conditions of the market or circumstances of living; and an industrial combination likewise grades its goods and sells according to zones if it can. Both structures have

to avoid the danger of real competition at the given rate, since better goods or more energetic work would defeat the method of the "common rule." Demarcation disputes arise between Trade Unions, as province-agreements have to be made between Trusts and Cartels in different countries or districts.[1]

In their general view of the assumptions of Trade Unionism the authors of *Industrial Democracy* find that three detailed principles are latent within the general creed of labour combination—the Vested Interest, the adjustment of supply to demand, and the Minimum Wage.[2] That the first of these is maintained by Trusts and Cartels is both admitted and claimed as a merit; it is essentially their method or ideal, when they arise out of exceptional market conditions, to maintain weaker firms, or the capital necessary to buy them, or part of this capital, upon the cost of production; thereby they are to soften the transitions and mitigate the injustices of market changes. The adjustment of supply to demand takes place under Trade Unions either by restriction of the supply in any trade or at any place, as in the apprenticeship regulations, so far as these are still upheld; or through collective bargaining resulting in the Common Rule of wages. Both these methods meet us constantly in the Trusts and Cartels. In the latter especially we observe the control of "participations" and the percentage reductions of output, as these are arranged on an estimate of what the market can take at the price aimed at. In both Trusts and Cartels the method of the Common Rule is frequent; in many cases, as we have seen, no goods will be supplied at all unless a fixed average price is paid for all that is taken, and unless a

[1] *Industrial Democracy*, p. 510.
[2] *Ibid.*, Part II., ch. xiii.

certain quantity is taken at that price; the aim being to transfer to the seller a large part of the buyer's surplus. To the Minimum Wage we may compare the base price of the Cartels; that this is not national is due only to the ubiquity of the supply of labour, a ubiquity which can still be approached in the case of such goods as coal and iron.[1] The stricter application of the Minimum Rate to labour than to goods is based on the ethical necessity of regarding labour as in some ways not a commodity; it is not possible to under-pay some labour and make up the Common Rule by a higher rate paid to other men; this can be done with the goods sold by Trusts and Cartels.

There are, again, important interactions between industrial and labour combination. The spread of the latter may be detrimental to the small or parasitic firms which only exist by paying low wages; Trade Unionism may make their continued existence impossible, and may transfer their trade to larger firms, whose economies of supply increase and enable them still further to undersell.[2] The direct interactions between the structures are more difficult to determine. The American Industrial Commission in its Final Report summarizes a great volume of evidence in the assertion that "it is impossible to make any statement that will be of universal application regarding the attitude of combinations toward Trade Unions. In most cases the position taken seems chiefly a matter of personal preference."[3] It does not seem that Trade Unions have ever been formed specially in order to act as a defence against Trusts; although they have been formed in combined industries, it is impossible to

[1] *Industrial Democracy*, pp. 834, 838.
[2] *Ibid.*, pp. 548–9 and 553.
[3] Vol. XIX., p. 622.

say whether the Labour Union was meant to face the employers because they were Trust directors, or only because they were employers. On the other hand, it seems to be made out, as might be expected from the historical order, that Trade Unionism has aided the development of Trusts by leading first to the formation of masters' associations, which thereafter developed into combinations; Liefmann, Grunzel, and M. de Rousiers ascribe this cause of origin. Where Trade Unionism is not strong, the existence of a Trust appears to hinder its development; where it is strong it appears to work well with, and even to approve of, combination from the side of capital. Trade Unions have helped the rise of Trusts and Trusts have hindered the rise of Trade Unions; this is the most general aspect of the evidence.[1]

We come now to examine the differences between the two movements. It has been said already that, as regards motive, the emphasis is in the one case on bargaining power, in the other on risks of production. As regards structure, it is evident that a Trade Union, although it regulates the supply of labour in any trade and its distribution over different localities, neither produces nor in any direct way controls the production of labour itself; and this differentiates it from even those forms of Cartels which regulate the activities of the firms involved, rather than themselves undertake production. Such Cartels directly affect, by participation, penalties, and indemnities, the quantity of production. A Trade Union, in fact, is not a company; it has, in its economic relations, no common product, purchase, sale, or distribution of profit; it is essentially a contract, and yet, in its relation to the product it controls, it differs from contracts between

[1] The evidence on this point has been classified by Miss Atkinson in *Political Science Quarterly*, Vol. XIX., p. 193 *seq.*, *Trusts and Trade Unions.*

firms.[1] In respect of policy, again, we shall find that restriction of supply of labour is becoming, in this country at least, a less and less popular method; for it is contrary to the philosophy of the movement. And the ethical ideals of Trade Unionism as a labour movement show themselves in its policy toward non-Unionists; it does not undersell them, but uses pressure to add them to its own ranks. It cannot exterminate men to raise wages, as Trusts have destroyed an excessive stock of goods. There is no tariff on persons of which it can avail itself. It does not seek a maximum net wage revenue, but a maximum of work at the standard rate. It does not furnish labour on the principle of decreasing cost; every workman must obtain the fair wage. And if we consider the kinship of Trade Unionism with the Socialist movement, it is easy to see that it is not of the over-production of men that it complains, but of that inequality of opportunity which in a cumulative process destroys reserve strength and efficiency.

These differences are deducible from the fundamental consideration that the unit is in one case the firm, in the other the individual; and that only the firm has complete economic efficiency. Combination between firms is therefore in essentials distinct from combination within the firm. The aspect of the former kind of combination must, on this ground, be toward the parties who enter; that of the latter kind is toward other parties within the firm. It is only another way of stating the same result to say that, in the case of Trusts and Cartels, the motive of combination is specially connected with problems of competition, while in the case of Trade Unions the emphasis is on conditions of bargaining strength.

[1] In Liefmann's terminology, it is a *Verband*, not a *Gesellschaft*, *Unternehmer-Verbände*, ch. i.

We may consider first the question of bargaining, and compare the relations of firms in this respect with those of employers to workmen. Thereafter we may make the same comparison in regard to conditions of competition.

First, as to bargaining. This comparison can be made in two ways. We may start with the relation of employment, and consider how far there are analogies of this in the relation of firms as producers and consumers of goods; or we may start from the latter standpoint, and seek analogies of that relation in the relation of employment.

If we make employment the point of departure, we may take as its essential marks (1) the discounting, by some partners in an enterprise, of the risks of the other partners; and (2) the supervision by the former of the activities of the latter, so that the operation of Natural Selection within the firm is both conscious and centralized.

As to the discounting of risk. It is possible to parallel this in the relations of firms to each other. The growth of the method of long contracts, before it has developed into integration, means that the consuming firms take the risks of the market off the shoulders of the producing firms, to whom they therefore pay a price lower by an estimate of the risk in question. For certain periods, some firms may be practically in the employ of other firms; although, short of integration, not in the employ of any one firm.

But yet as between firms, this relation does not obtain quite in the same way as between men and masters; just because the firm is an independent productive unit, while the workman is not. A firm, that is to say, which is in a sense and for a time in the employ of certain consumers, still retains all the bargaining strength which

belong to it because it is a firm—its capital and its reserve, its knowledge of market conditions, its power thereby to play off one consumer against another. Firms which operate on the lower levels of industry possess this strength in no less degree than those which operate higher up; the strategic position of a firm seems often, in fact, to be stronger as it stands on a lower level, and directly controls raw materials. Such reserve strength, and knowledge of the market, and adaptability do not belong to the individual employed workman, who must deliver his labour in person, and is at any time bound to one employer only.

The discounting of risk, therefore, still acts as a peculiar feature of the wage-relation in so far as it accompanies a difference of bargaining strength, which it tends to emphasize, and by which its own significance is modified in the cases of workmen as against firms.

Secondly, as to the conscious and centralized control which is exercised over wage-earners but not over firms. "Those who undertake business enterprise are to a certain extent a class apart. For while it is through their conscious agency that the principle of substitution chiefly works in balancing one factor of production against another; with regard to themselves it has no other agency than the indirect influence of their own competition."[1] This fact, that no central authority guards the guardians of substitution, has already been discussed as a basis of industrial combination. For our purpose now, it is a fact whose influence is twofold; for the *absence* of such control as between firms is a motive of combination between firms; while its *presence* within the individual firms, and that on the masters' side of the organization, is a motive of labour combination because it implies a

[1] Marshall, *Economies of Industry*, p. 321; cf. p. 52 *ante*.

relation of dependence on control from outside the ranks of labour, a dependence concomitant with and enchanced by the discounting of risk in the wage-relation.

Thus if we start from the essential marks of the relation called employment, we find that these cannot be extended *simpliciter* to firms; there are vital distinctions between the cases, so that combination can be motived for quite distinct reasons on either side.

Let us now start from the side of the firms, and seek analogies in the relations of men and masters of the relations of firms between themselves. Is employment a case of demand and supply? or rather, of the producer-consumer relation?

On the side of the firms, it is goods which they supply to each other. What do workmen supply? Suppose that it is the supply of men that is in question; it is at least clearly involved in the supply of work. Plainly, this is a supply not subject to the same control as in the case of goods; even combination into Labour Unions affects this supply only through its educative and indirect influence on the birth or marriage rate. The Apprenticeship regulations, which control the entrance to a trade, are, in this country at least, being abandoned by Trade Unions. They do not make it part of their practical policy to influence the growth of population; this growth depends on long-period forces that are beyond the domain of Unionism, which cannot by labour combination bring about any adequate restriction of the whole supply of men willing to work.

It is, in fact, contrary to the whole spirit of Trade Unionism to admit that of men there can be an over-supply; for, in a very special way, men unite in themselves demand and supply. "It is not," says Mr. Hobhouse, "that there is a surplus population. It is not that there

are too many workers for the demand; for there is also too much demand for the commodities supplied. The very same persons who could supply the demand stand also in need of the products of work."[1] It is implicit in the philosophy of the labour movement that there is no workman who cannot render service that is worth the living wage, whatever the supply of men may amount to. Whatever modification this position may seem to require, it is of significance as indicating the spirit of labour combination. The realization of a "fair price" is not claimed for goods irrespective of the supply, but only as the effect of justifiable restriction.

If, then, the relation of employment is to be a good analogue of that of producer to consumer, we must take it that it is work, and not men, over the supply of which a Trade Union takes control. Is the supply of work, then, an instance of the producer and consumer relation?

The answer is in the negative. Workmen do not supply their work to employers as one firm supplies goods to other firms. The difference is an essential one. Work is a commodity which is produced only in the act in which it is sold. Labour does not keep, because before a thing can keep it must be created. This can be put in another way. The employers constitute the market for labour, but when workmen sell their labour to the employers, the transaction is not one in which goods have been solely produced on the one side and solely acquired on the other; employers are essentially a party to the production of effective work, and co-operate in the production. But a firm which buys steel billets from another firm does not co-operate in the production of the goods which it acquires, nor supervise the internal disposition of the producing firm. The purchasers are the market purely

[1] *Labour Combination Movement*, pp. 29–30.

and simply; but if so the relation of employment is not a pure case of the producer-consumer relation.

We meet here, in fact, working now from the other side, the argument which was initiated from the side of employment; that an essential and peculiar feature of this relation was the conscious and central supervision which exists within the firm, but not between firms.

We have then two coincident lines of argument. Starting from the side of employment, we find that its essential marks hold in only a slight degree of the relations between firms; that the special effect of the employment relation is to create between men and masters a dependence out of which Trade Unions arise as a necessary defence; for the initiative, the reserve, the control of stocks, the power over credit, belong to the takers and discounters of risk, whose waiting power may even be enhanced by the stoppage of a firm, since their stocks are increased in value by restriction.

Starting from the relations of firms, we find that these relations are not capable of simple extension to the case of masters and men; and again because of this fact of economic dependence in the latter case. Because a producing firm does not depend in this way on consuming firms, it maintains against them the bargaining power of a complete economic unit, whatever the industrial level on which it operates.

A special emphasis on questions of bargaining is therefore implied in the rise of labour, as compared with industrial, combination.

Let us now consider the problems of competition. Do workmen compete with each other as firms do? or are there special features of competition between firms which are not presented by competition between workmen?

On two grounds, the competition of workmen must be

distinguished from that of firms. For the relation of competing firms to each other is thoroughly negative in the sense that each firm stands to gain by the cessation of its rivals from production; competition in this case is implicitly a monopoly endeavour. This is so because of the economic self-sufficiency of the firm as an organization. But workmen are differently placed in this respect. Their competition is not implicitly a monopoly endeavour; the cessation of all workmen save one from work would give that one not monopoly but unemployment. The unit of efficient labour includes a number of workmen; and up to a certain point workmen are positively dependent on each other, in a way in which firms are not. This, in the second place, shades off into another consideration. Firms can draw on each other's operating capacity, but workmen cannot; for this further reason the former stand to gain by the cessation of their rivals. If some firms are driven out of the market, their labour is at the disposal of those which remain, and which can therefore press on toward monopoly; but if some workmen are unemployed, the remainder cannot draw on that idle capacity so as to extend their own energies in the monopolistic direction.

As a general comparative result, therefore, we find not only a special dependence of men upon employers, from whichever side the analysis starts, a dependence, too, which gives the bargaining strength to the employers; but up to a certain point also, a positive dependence of workmen upon each other, which is not paralleled in the relations of competing firms. These differences imply that the emphasis of labour unions is on bargaining and of the union of firms on competition. Labour combination explicitly arises for purposes of bargaining, since to an already implicit combination there is added a general economic dependence.

This result may be summed up in two equivalent propositions—

First: The relation called employment is unique, and is not a pure case of demand and supply.

Second: The firm, not the individual, is the efficient economic unit; the conditions which apply to the full unit do not apply to its factors, any more than they apply to the whole industry of which it is a part.[1]

Our conclusion is, therefore, that those authorities are right who differentiate labour unions from Trusts and Cartels, and ascribe to them a different economic significance. A Trade Union is not a labour Trust. The similarities between the two are only such as are implied in the bare idea of common control; the differences are fundamental. We cannot straightway regard them both as co-ordinate aspects of a "general combination movement."

"Labour Protection," writes Schäffle, "signifies only protection against the special dangers arising out of service relations, out of the personal and economic dependence of the wage-earner on the employer. It does not apply, therefore, to independent workers; to farmers or masters of handicrafts, to independent workers in the fine arts or professions. Labour Protection applies merely to wage-earners."[2]

Historical verification for this result is furnished in the history of Trade Unions themselves; their development is connected with that of the wage-relation. So long as the position of the craftsman was one in which he served the consumer in his own name and as his own master; or even if, though a subordinate, it was at some time possible for him to attain the rank of a master-craftsman;

[1] Marshall, *Principles*, Bk. V., ch. xi., sect. 2.
[2] *Labour Protection*, Eng. Trans., p. 8.

the tendency to form Trade Unions was held in check. The relation of employment in the modern industrial system is an essential ground for labour combination.

In the opinion of the chief authorities on the historical question, it is the fact of dependent status which "vitiates any treatment of the Trade Union as the analogue of the Craft Guild." Comparative study of the same industry pursued in different places on the capitalist or domestic system yields, in their view, the same conclusion. The same is true if we make the comparison at different times, and trace the connection of labour combination with the factory system. The factory system, they believe, is not a complete explanation of Trade Unionism; bargaining disadvantage can arise without it; but the factory system is the great type of that industrial division which gives the unique employment relation.[1]

Webb, *History of Trade Unionism*, ch.

PART III

NATIONAL ASPECTS

CHAPTER I

THE NATIONAL EFFECTS OF COMBINATION

"THE process of amalgamation is transforming the whole industrial life of Germany. Like a new substance introduced into an existing chemical compound, this new economic factor is producing continuous changes, resulting in new compounds and a rearrangement of the existing forces." This remark is the summary statement of the evidence of all our official reports on German industry since the first momentum was given to modern Cartelling about the year 1894. Equally summary is the conclusion of the American Industrial Commission. "The economic advantages of combination, and the apparent success of most of the new companies, have led many of the ablest business men and economists to the conclusion that the combinations have become an established factor in the industrial life of the nation. . . . There is reason to believe that the movement toward concentration will go steadily on, but there is no reason for thinking that within measurable time the combinations will cover the entire field of industry."

The imposing position which is held by some of the greatest industrial combinations has led certainly to an exaggerated view of the extent to which modern industry is combined. An exact calculation is not yet forthcoming as regards England and the Continent; from various sources we can gather the number of combinations exist-

ing in England—about forty at the present time—and in Germany, Liefmann's estimate being about two hundred Cartels. But this kind of enumeration is deceptive; for it is clear that if one Cartel, like the Steel Cartel, or one Trust, like the Steel Trust, absorbs many smaller Cartels or Trusts, the absolute number of the combinations will be lessened, though combination itself is gaining a stronger position. The American Census gives us more trustworthy means of calculation. As it points out, its figures must be taken with caution and in the rough. It excludes local or public service corporations, hand trades, and businesses which have grown into the combination form by expansion from within rather than by combination from without; and these are important qualifications. Its return, on this basis, shows that the Trusts in America in 1900 employed 8·4 per cent. of the labour, paid 9·6 per cent. of the wages, and produced 14·1 per cent. of the output, in the industries taken for examination. These results at least discount many hasty assumptions and fears that industry is rapidly tending toward monopoly.[1]

Considering, again, that Trusts as a rule shut down and render idle many establishments previously operative—this method of "running full" being a chief claim on their behalf—and that in fact the percentage of idle firms in Trusts is eleven times that for the whole country; it may fairly be argued that an increase in the number of operating establishments during the past decade indicates the vitality of independent competition. And this increase is one of 44 per cent. in 1900 as against 1890.[2]

The contrary reasoning on the Census figures would not be safe; a *decrease* in the number of establishments operative in any industry is not necessarily due to Trusts, but perhaps only to production on a larger scale. Thus the

[1] Census of 1900, Vol. VII., Table XXVI. [2] *Ibid.*, Table I.

numbers of establishments operating in iron and steel, at the last three Censuses, are 699, 699, 668; and in leather, 5628, 1787, 1306. But iron and steel is Cartelled to about four times the extent of leather in terms of value of products, and about five times the extent in terms of labour employed.

And yet, although figures give us a less formidable account of the combination movement than present agitation seems to warrant, there are important considerations which cannot be easily expressed in figures. For a few very strong combinations may exercise on national industry a "leavening influence" in a very high degree. The force of this influence will depend on their position in the scale of production, and the compactness of their organization. The Steel Trust or Cartel is only one combination, and the value of the products of either may be a not very formidable percentage of the finished products of the nation; yet its influence over the independents, and over all consumers of iron and steel, may be of the utmost national importance. There is no doubt, for example, of the pervading influence of the Standard Oil Trust over the means of procuring light and fuel, as well as lubricating oil, throughout America. We should require to find some measure of the relative importance of certain staple products such as oil, coal, or steel, before we could judge the real national significance of combination.

It is from this standpoint that we must draw conclusions regarding national organization; statistical reasoning is as yet imperfect and unsafe. And there is, in the first place, one line of argument which can be briefly dealt with. If combination is an industrial method which in all cases realizes great economies, its national effects are similar to those of any new process or invention, and the more widely it extends the better. Against an increase in

productive efficiency no ground can be taken. The suspicion against Trusts and Cartels will then be based only on prejudice and novelty; and will be on a par with that levelled against the Joint Stock method which preceded the Trusts and Cartels. It would still, however, be possible to argue that combination may be a more efficient method for some industries, but not, at the same time, for others; so that a merely imitative or sympathetic extension of the method from the former to the latter would not in the end be good for national strength.

But productive efficiency is not as a rule the first ground taken on behalf of combination; it is usually put forward as a fortunate result of combination otherwise motived. The common point of departure for the argument is the need for defence against excessive competition in certain spheres. And it must be admitted that, for particular things at a given time, there is such a thing as over-production, and that restriction of supply is necessary and right. And if combination ceased when this was remedied there could again be no cavil. But it does not cease there; the danger is that it spreads itself over other industries, first those that are closely dependent on that already combined, and then through allied stages of production; and however reasonable may be a restriction of supply to overcome a special over-production, a general restriction, such as tends to be brought about by combination once set afoot, cannot in the same way be justified without implying the admitted fallacy of a general over-production. Thus, although this argument has a just point of departure, it is not capable of general development.

It is admitted that combination is not as a rule primarily due to productive efficiency, but rather to reasons of defence or aggression. In either of these cases, therefore, its effect will be shown in a *régime* of higher prices. This

is evident in the latter cases. But in the former, it follows at once from the defensive nature of the union that the prices established by it will be higher than normal. For defensive combination, as we have seen, implies an excess of investment of capital; and yet this excess, or a part of it, is to be maintained under the combination. Only the remedy of "a few good fires" would enable a subsequent combination to hold prices normal. Otherwise it takes under its control the admittedly excessive plant in the market; and even if it sells some establishments, in the case of a Trust, it must, as we saw, do this at a certain loss which varies with circumstances; and the interest on this loss must be charged on future prices. Prices will rule high, not only in relation to the abnormally low prices due to excessive competition, but with reference to normal conditions. The over-investment has been made, and will have to be paid for somehow.

The extent to which prices can be kept up by any form of combination depends on the nature of the objective conditions already referred to, and the motive and policy of the combination. The common analysis of monopoly price is rarely applicable. It would hold good only of a strict monopoly, legally established, highly protected, and given otherwise a free hand. As a rule, a limit to price is set by objective conditions like tariffs or freights before the theoretical point of maximum monopoly revenue is reached. The residue of competition which has always to be faced, at home or abroad, affects a combination in different ways. If it is an uncombined residue, it must be supposed that it will place on the market all its available capacity, and so drag down the price against any attempt at restriction; we have seen that a not very great percentage of residual output can be dangerous in this way. The outsiders will of course reap some immediate

advantage from the restriction of the combination, but how long this will last depends on the nature of the trade, and especially on the freedom of access to new sources of supply. On the other hand, the residual supply may itself to a great extent be combined. There are then two possibilities. The smaller combination may simply take the shelter offered by the larger, and prevent any expansion of outside competition. This is the result known as "holding the umbrella over competition." There are abundant instances of it.[1] It is a likely result so long as the residual supply is not fully, but only imperfectly, combined. But in the other case, if the residual supply becomes highly combined, we have two combinations in the market, and they are likely to enter on a long fight for supremacy. Each of them will of course endeavour to maximize its own net profit by adding to an estimated output of its rival's a restricted output of its own, and fixing price on this basis of supply; but there is no stable equilibrium, since they will modify their outputs against each other, and each, in aiming at its own profit, will become incalculable to the other. The usual result has been a price war in which not only have competitive conditions been restored, but even sales below full cost for long periods of time; since psychological forces must be added to those of economic analysis, and a combination resents nothing so much as another combination on its own level. As had been foreseen, the price of an article, under such circumstances, "is likely to be so much influenced by the incidents of the campaign between rival producers that no free play is allowed to the normal action of economic forces, and it can hardly be said to have a normal supply price."[2]

[1] Vol. I., Part I., pp. 18–20.

[2] Marshall, *Principles*, p. 469. The contest between "two

The raising of the level of price is not only the theoretical result of combination when it succeeds, it is also the inductive result of all the evidence. Whatever be the inherent possibilities of combination in the way of making new economies, thus far the opportunities of high profits have prevented the benefit from going to the consumer.[1] It has indeed been often pleaded, when combinations are formed to avoid the "over-production" of a period of transition, that in the end they operate well enough if let alone, since they are able to pay higher wages to offset their higher prices. This contention derives all its plausibility from another phenomenon with which it is confused. A rise in prices may have two general causes. It may mean that money is more plentiful, goods remaining the same, or that goods are scarce, money remaining the same. In the former case, it is possible and likely that, after the transition is made, higher prices

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monopolies" is analysed by Cournot (Sect. 44). The instability may be shown as follows: Let x and z be the capacities, $\frac{x}{n}$ and $\frac{z}{m}$ the outputs, of two combinations, f_1 the formula of demand, f_2 and f_3 those of supply. Then the expressions

$$\frac{1}{n}x\left(f_1\left(\frac{1}{n}x + \frac{1}{m}z\right) - f_2\left(\frac{1}{n}x\right)\right)$$
$$\frac{1}{m}z\left(f_1\left(\frac{1}{n}x + \frac{1}{m}z\right) - f_3\left(\frac{1}{m}z\right)\right)$$

must be maxima together. If m and n can be treated as independent variables, and if the costs of the two firms can be taken as practically the same per unit, then it is a condition of any equilibrium that $\frac{x}{n}$ shall be equal to $\frac{z}{m}$; the two firms, that is, must restrict to equal outputs. This is out of the question if there is any great difference in their capacities. Thus the Sugar Trust had a capacity of 40,000, the Arbuckles of 4,000 barrels per day; and the Arbuckles claimed to refine as cheaply as the Trust. The Trust would have had, for any equilibrium, to restrict within one-tenth of its capacity, and this is a prohibitive condition.

[1] *v.* Jenks' *Statistics.* Vol. I., Part. I., pp 39–57, of the *American Commission.*

can be paid by higher wages; there is more money in the country with which to purchase its output. In the latter case, however, the rise in prices means a diminution in the country's resources. There are fewer goods and only the same money to buy them. Prices will rise; but where is the increase in wages to come from? High prices do not attract gold. A general *régime* of Cartel prices could only diminish consumption, and create new over-production and restriction.

Against the general admission that the level of prices will be raised under the rule of industrial combination, there is, however, set the advantage of a greater steadiness; this is the centre of the question from the standpoint of the "captains of industry" who undertake these enterprises. Thus, although the English prices of coal have ruled lower than those of the Westphalian Cartel, it is pointed out that they are "more variable, and follow the fluctuations of industrial activity more closely."[1] Our Consuls in Germany tell us constantly that "all authorities are agreed" that this advantage is to be set to the credit of the Cartels. The higher range of prices would then be due only to a legitimate insurance against market fluctuation. In the same way, Professor Jenks claims that, by avoiding the excesses of competition, even at a higher price-level, there can be a diminution of fluctuation, although his statistical inquiries admit that this has not yet been noticeable.[2]

Sayous asserts in the same way that it is fluctuations which are the chief reason for the Cartels;[3] and Liefmann with other authorities believes that, as Cartels are the "children of misfortune," and the outcome of these recurrent crises which are the evil aspect of modern

[1] Walker, *op. cit.*, p. 200.
[2] Vol. XVIII., p. 161; cf. Macrosty, *Trusts and the State*, pp. 206–8.
[3] p. 333.

industry, they will have served their main end by the uniformity and calculability which they will introduce into manufacturing conditions. The Commission reports "little doubt that the larger part of the German combinations were formed with the deliberate purpose of fixing prices." The Sugar Cartel for instance has made prices "considerably higher than they would be under competitive conditions, and this, with the intention of keeping steady, has been a matter of deliberate purpose."

Now it is clear, in the first place, that high prices are not excused merely on the ground that they are steady. Combination is advantageous to a country if it can bring steadiness into the market; but other things must be equal, and what is the connection between keeping prices steady and putting them high? It might be better, if prices are to rule high, that they should not be steady; for although an equable climate is a desideratum, there is no graver charge against some climates than that they are so equable. This whole argument is at present a *non sequitur;* no connection has been shown between one of its assertions and the other.

But again, the position becomes almost devoid of economic meaning, if the prices set by combinations are obtained by simply adding to their costs of production freights or tariffs or both, from the nearest competing centres. Thus we learn that, in Austria, the purpose of the iron combination was "to secure the highest prices which were to be secured after taking into account foreign competition and the tariff and freight conditions."[1] Again, "the managing director of one of the great iron combinations in France has stated that, if you wish to get his course of prices over a series of years, the simplest way is to take the English trade papers, get the London

[1] Vol. XVIII., p. 114.

prices, and add to that the freight and the French tariff."[1] The generality of this method is vouched for by one of our Consuls, according to whom "a publication by Vogelsang has established the fact that the iron syndicates regulate their prices according to those of the United Kingdom by adding to the British price, customs, freight, etc."

Now if this is the policy to be pursued, and it is a national one, prices will rule steadier on the higher level. Thus if English prices at three periods are 10, 15, 20, and the freight and customs charges are 5 per unit, the combination prices will be 15, 20, 25; then, while the former are in the ratio of 100, 150, 200, the latter are in the ratio of 100, 133, 166, showing therefore a less relative fluctuation. But it is clear that no economic significance would attach to a steadiness of this kind. The same absolute fluctuations are merely being calculated on an initially higher price level.

The following, for instance, are the figures for the Westphalian Coal Syndicate's prices at Essen, exclusive of coke and briquettes, and reduced to English tonnage; compared with English price f. o. b. Newcastle, with the same exclusion, and omitting the export tax in 1901–2.

	Newcastle (shillings)	Essen (marks)
1894	8·58	8·81
1895	7·75	8·62
1896	7·08	8·66
1897	7·33	9·37
1898	8·25	9·64
1899	9·50	9·93
1900	14·75	10·79
1901	10·5	10·82
1902	9·33	10·22

[1] Vol. XVIII., p. 10.

Average annual fluctuations in percentage—

England: 18·09
Germany: 3·89

Absolute average fluctuations—

England: 1·82 shillings.
Germany: ·37 marks.

If we consider the "base" and selling prices of the Coal Syndicate, we shall obtain a comparison of competitive and Cartel prices, free from any confusions of the money standard. The prices are not fixed by the Cartel for exactly the same periods, but the following table shows clearly enough the different rate of fluctuation. Taking prices at the opening of 1893 as the norm, and calling this 100, we have—

PRICES OF FAT COAL IN MARKS

Average Annual Price			"Base": April—April	
1894	100	8·00	7	100
1895	100	8·00	7·50	107·14
1896	103·12	8·25	8·30	118·57
1897	110·62	8·85	8·30 to 9·10	between 118–130
1898	113·5	9·08		
1899	117·12	9·37	9·10	130
1900	128·12	10·25	10·10	144·28
1901	128·12	10·25		

The selling prices, however, started on a level more than 14 per cent. above the "base" prices.[1]

[1] For figures v. Raffalovich, p. 421; Sayous, p. 77; *F. O. R.*, 3042, p. 37.

In the case of Cartels there is a tendency toward unsteadiness in the temporary nature of the combination; not only because this leads them to put up prices during the contract, but because of uncertainty toward the end of that period. This uncertainty may not appear in the price list of the Cartel itself, so much as in that of a buyer from or a seller to the Cartel. Cartels, however, show a tendency not only to reconstitute themselves, in some cases before the original agreement has run its course, but a tendency also to combine for longer and longer periods, and so enable themselves to take wider views of the market. Trusts are not so dissoluble as Cartels, but are liable to greater interference from the legislature. Short of the statutory periods of dissolution, the occasions on which outside competition, which can become formidable, must be taken into the Trust or Cartel, will cause sudden changes in market price; and Liefmann has asserted that Cartels both tend to foster competition, and cannot overcome it when it is a serious menace except by sudden dissolution and a reconstitution which includes it. Again, it is clear that prices which depend upon tariffs are liable to fluctuate with the incidents of commercial negotiation.[1]

In many cases the steadiness of price under combination is due to the bargaining strength by which consumers are forced to take delivery for long periods at given rates; so that when their own market is falling, they are still

[1] Cf. *F. O. R.*, 2523, p. 12: "It is hoped that the raw sugar works as well as the refineries will make a good profit during the five years existence of the Cartel."

Under such contracts as the Spirits Cartel, some members are admitted for one, two, or three years, though the Cartel agreement is for nine years.

Cf. Sayous, p. 254: "Le second semestre ne fut pas meilleur parce que le contrat de société allait expirer, et que l'on craignait un dissolution définitive et, en conséquence, une baisse considérable."

burdened by the fixed prices of their materials. This has two disadvantages, one of which showed itself in the German crisis of 1900–2. It unduly increases the fixed charges of the manufacturer; yet it is fixed charges which lead to the demoralization of a falling market, and to many of the phenomena of crises. Again, it is the finishing industries which can least easily be combined, so that the fixing of price is apt to be undertaken by the lower producers of raw materials; and such a method of directing economic activity, in that it leads the regiment from behind, is somewhat opposed to our ideas of the "captaincy of industry." Sliding scales will no doubt come to be arranged as the Cartels come into ever closer contact with each other, unless they are anticipated by the spread of integration, which is a growing menace to the Cartels. Clauses having the effect of sliding scales have, as we saw, been introduced with regard to gluts, or a rise or fall in the market for finished goods.

Again, the exhibition of high and steady prices for one industry tells us nothing until we have traced their effects on industry generally. Their effect is to reduce the consumer's purchasing power for other goods, and to lead elsewhere to crises from "under-consumption."[1] For

[1] *v.* Sayous, p. 34, and contrast—

"All agree that, since the formation of syndicates, the capitals invested in trade have become less subject to risks arising from crises. . . . Thus also the labour market must profit; employment and wages have become steadier," etc. (which may be true of the industries able to force high and steady prices). (*F. O. R.*, 3042, p. 31.)

"The deplorable conditions in the iron industry have led to such an intense lack of employment in the works that, in order to avoid intermittent shifts, work had to be reduced to the utmost. While the prices of their products were, during 1902, constantly receding until they reached an unprecedentedly low figure, the prices of coal, raw iron, etc., were dictated by the syndicates. Notwithstanding the considerable reduction of working hours it was impossible even to a limited degree to counterbalance the discrepancy." ("Report of the Cast Steel Company at Annan, Westphalia, for 1902," *ibid.*, p. 41.)

when a seller proposes to charge, and thinks it right to charge, "what the trade will bear," he forgets that the real principle is "what industry as a whole can afford for that trade." Hence if under-consumption leads to depression elsewhere, these other industries may Cartel themselves and make their prices in turn higher and steadier, this having been the actual course of things on the Continent; and the result is a higher level all over the market, the general uniformity of prices having been purchased at least at the expense of the development of new wants and industries. It is not clear that anything has been done by this raising of the level to mitigate the forces of human nature which tend to speculation. This will so far happen on the new level as on the old. For while a single Cartel or Trust that is strongly placed may find it advantageous to sell to manufacturers at high steady prices, it will cease to have this advantage when the wheel comes full circle, and its own supplies of auxiliary capital become in their turn more costly. It will then endeavour to force sales and enlarge output or, if it can, exact monopoly prices; and the interplay of the ordinary forces will recur.

If combination can steady prices, it should be able to show this power without the quite inconsequent operation of putting them up; steadiness is either a doubtful advantage, or has little economic meaning, if it goes with a higher level of prices. It must be detrimental to national trade if finishing industries are debarred from taking their own risks of raw supplies, and must accept risks imposed from a level which cannot judge the national market. The advantage of long contracts at fixed prices must depend upon the bargaining freedom of the parties to these contracts.

A manufacturer would almost certainly prefer that the

prices of raw supplies were uniform for himself and for his rivals, than that they were merely uniform for himself over a period of time. And this brings us to the second form of fluctuation—fluctuation of price as regards space-disposition, and the influence of combination upon it. It has been said already that this is more important than time variation; since the equal treatment of all producers affects their existence, while the uniformity of prices in time presupposes it.

It was hoped, at the origin of the combination movement, that there would be a gradual abolition of the discriminations and secret bargains induced by the fever of competition. All producers, Liefmann hoped, would be placed on an equal basis: "Cartels contain a factor which is calculated to advance in a high degree the uniformity and stability of the market."[1] Kollmann could make the same claim for the Steel Cartel. All these hopes are still far from realization. It is impossible to say whether combination does not merely write large the methods of discrimination; possibly it mitigates the evil by its wider grasp over the market, or by the publicity of many of its methods; it is certain that discrimination has become systematized under combination, and that much of it is still known only to the combination itself.

The methods of the "zone system" and the discriminated price have already been mentioned; the former is a more stable, the latter a more haphazard, application of unequal prices. The former presupposes a considerable grasp of the market, the latter either a less firm control, or a specific method of attack at particular points within the general area of a selling zone.

The zone system is not peculiar to foreign trade, as the arrangements of the strongest Cartels show. The Silesian

[1] Liefmann, pp. 173–4; Kollmann, p. 2.

and Westphalian Coal Cartels are protected against each other by freights, but they compete intensely in the central markets of Germany. The latter has marked out four selling zones, according to which it must grade its prices. The Silesian Cartel has two zones, selling at full prices in Silesia and Posen, and at low prices toward central Germany. The coal producers in the basin of Zwickau work in the same way: "une carte géographique indique par des traits de couleurs diverses trois zones"; in one, they control the market; in the second, a reduction of four marks is necessary; in the third, each producer can do as he pleases. An international Glass Syndicate formed in 1900 recognized firstly, the national markets for high prices; secondly, "normal markets for export" where the syndicate was still master, at "moderate prices"; thirdly the "marchés de lutte," such as America, the Indies, and Russia, where there was English competition, and prices were "aussi bas que possible."[1] This reversal of the normal order, making goods dearest near to their centres of supply, will in time cause a movement of manufacturers to the favoured zones, and this in fact has been occurring in Germany; but to those whose capital is fixed and specialized on the basis of the estimated advantages of the old locations, such price variation is far more insidious than even a considerable fluctuation in time.

The zone system has in some cases led to further complications making for further price discrimination. For as soon as purchasers who are unfavourably placed turn to other markets for their supplies, the combination retains their custom by granting them special terms. On the margins of selling zones this is constantly liable to happen; as in the case of the brick and tile manufacturers of N.W. Germany in 1901, who determined to institute a trade in

[1] Cf. Sayous, pp. 96, 127, 203, 245, 277–8; de Leener, pp. 266–7.

British coal. To this the reply of the Cartel was to grant "foreign terms" to these manufacturers, and to treat them in all respects precisely as if they were not German. But the pressure has come more often from the special regulations of the tariff with regard to the "finishing traffic"; although the Cartel prices in the home zones have been the original cause. Thus we have the case of "the German shipbuilding yards near the Dutch frontier, which, in spite of duty, double freight, etc., found it cheaper to import German shipbuilding material from Holland than to contract for its delivery direct in Germany. To these works the Government extended the privilege of free importation of shipbuilding material, a privilege already existing on the coast. In consequence whereof the syndicates decided that to such shipbuilding yards the benefits of foreign customers should be extended."[1] The regulations in regard to the finishing traffic were thus under the Cartel policy extended to half-finished goods, having previously held rather of raw materials; and it appears that, under protest against the zone policy of the Cartel, the extension has still to be carried further. "It is moreover certain," says the Report, "that in most cases in which the finishing traffic would be extended, raw material would not require to be imported from abroad, for as soon as a manufacturer is thus enabled to obtain his raw material or semi-finished goods from abroad, the syndicates are very much inclined to reckon him among their foreign customers, and he shares the privileges of the foreign connection." The effect of these manœuvres is a harmful unsteadiness of industrial conditions, rendered the more speculative because of the temporary nature of the Cartels, and the consequent hesitancy of manufacturers to change their locations or connections. They are prevented

[1] *F. O. R.*, 3042, p. 28.

from buying in the cheaper zones at home, even if they could make this profitable, because of the Cartel contracts regarding re-selling, and the strict control exercised over dealers.[1]

The distinction of home and foreign markets is irrelevant so far as the operation of the zone system is concerned. Where there is no customs tariff, the selling zones are arranged without any reference to the national frontier, which is a line quite arbitrary as regards economic markets. Although, for example, the Westphalian Coal Cartel makes sales abroad at lower prices than in its uncontested home areas, it does this also in the contested home areas of central Germany. Of its four original selling zones, the fourth was at its origin constituted by Wiesbaden, Mayence, Frankfort, Darmstadt, Wurzburg, Bavaria, Baden, Wurtemberg, Alsace-Lorraine, Belgium, Holland, Italy, France, Switzerland, Luxembourg.[2] Only if there were export bounties would the frontier have special significance.

For goods that are protected there may be a more sudden fall in price in the foreign as compared with the home market; yet, even so, there might be highly contested zones at home where the prices ruled as low. The tariff acts inwardly like a freight charge which grows not gradually but by a sudden increment. Special circumstances may create a similar discontinuity at home. The foreign market, as a selling zone, tends to attract more than its due share of attention, because both the imagination and statistical tables of trade lay emphasis on the frontier line. "There is a peculiar glamour about the words 'foreign trade' which makes us imagine that something occurs when goods come from over a political frontier which does not happen when they come from a place

[1] Cf. Vol. XVIII., p. 85; Raffalovich, 451–2; Sayous *passim*.
[2] Raffalovich, pp. 408, 467.

inside the frontier. But a great deal of trade commonly called 'home' would really come under the classification of 'foreign' if we looked at physical geography and economical boundaries, instead of political boundaries only."[1]

So far as the stability of national trade is concerned, sales at low prices in foreign areas may in fact matter less than sales in the contested zones at home. For the tariff may affect re-import more effectively than bargains with dealers can affect re-sales at home; and in any case the foreign sales of a combination cannot easily affect the foreign price, which is fixed by international relations; while the home competition of one or two great combinations may lower the price severely in certain zones, and shake stability for long periods.

The zone system is often said to be of advantage to national trade in that the cheaper sales in the contested areas, home or foreign, enable the combination to "run full," and thus to hold prices lower in the uncontested areas. This plea has no special reference to, nor is it any adequate defence of, the system in question. A larger output will usually lessen costs of production per unit; but it could be obtained by lowering price in the uncontested areas, no less than by exporting into open markets.

The following are typical statements of this policy—

"A surplus is produced for export in order to keep the home mills running full. Dr. Grunzel justifies the sale of goods abroad below the home price on the ground that, by the economies resulting from the greater output, the cost and price of the goods sold at home are also reduced."[2]

[1] Giffen, *Economic Journal*, Dec. 1905, pp. 485–6.

[2] *Political Science Quarterly*, Vol. XVIII., p. 163.

"The combinations do not deny the charge. They claim that they must do so if they are to export at all, and that the export business is necessary if they are to keep their works running full time and their labour employed."[1]

"It is conceded that it is frequently true that export prices are made lower than domestic for the sake of securing the trade. It is claimed, however, that no disadvantage has come to the American consumers because, when the foreign market has been once secured, the continuous full operation of the plant with the increased output reduces the cost of the entire product."[2]

"By manufacturing say 200,000 tons of wire per annum to export to all parts of the world, we cheapen the entire cost of manufacture very materially. By doing that, we are able to give the consumers at home a cheaper price in the long run, and employ perhaps 25 or 30 per cent. more workmen, so that in the long run we figure that it will equalize itself."[3]

A reduction of costs by this method may of course take place, and a greater employment of labour in that trade.[4] But the reduction of costs will not necessarily affect the consumer favourably by a fall in price; it is as likely, under the given conditions, to be followed by a higher price in the uncontested areas. If prices in those areas are already at the maximum allowed by tariff or freight conditions, any variation in prices must mean a reduction. But if they are not,—if the elasticity of demand caused them formerly to settle at a level within what was possible by these conditions, so that prices can vary upwards as well as downwards while the area remains uncontested,—the production of a larger output for sale in a contested

[1] Vol. XVIII., p. 11.
[2] Vol. I., Part I., p. 23.
[3] Vol. I., p. 1015.
[4] *v.* Vol. XIX., pp. 627–9.

area at a lower price may lead to either a higher or a lower price in the uncontested market. Thus if, in an uncontested market, 1000 units have been sold at a price of 80 and a cost of 60 per unit, with a monopoly profit of 20,000 units, the cost may be reduced to 55 for an output of 1200 units. If the "contested" price is 40 per unit, then the same net profit of 20,000 can be made *either* by exporting 300 units at a loss of 4500, and selling 900 at home at a price of $82\frac{2}{9}$, *or* by exporting 100 at a loss of 1500, and selling 1100 at home at a price of $74\frac{6}{11}$. But suppose that in the home market the producer can sell 900 at a price of 84, and 1100 at a price of only 73; then it will pay him best to export the larger quantity and raise the home price. He will raise his net profit to 21,600 instead of reducing it to 18,300. It is impossible to say, therefore, whether a monopolistic combination, which can move the home price either way, will raise or lower it under this policy of "running full" and selling a surplus.

Thus if, in a national market controlled by strong combinations, the point of greatest profit is reached before the full tariff is made effective on price, the policy of foreign sales at a loss may not be good for the home consumer. But if the limit allowed by the tariff is reached first, so that prices cannot vary upwards, the consumer may possibly gain, as well as the combination, by this policy, if pursued under conditions of decreasing cost.

In spite of these theoretical possibilities, it appears that in fact Trusts and Cartels do not regard this policy with great favour, but use it from time to time as an expedient An investigation made, under precautions, by the American Commission showed that 80 per cent. of the Trusts made foreign prices no lower than home prices; this would

imply that the tariff was unnecessary. In the same way we find the German Steel Cartel making it one of its main aims to put an end to the excessive reduction of foreign prices. Thus the conditions for the success of this method of running full do not seem to be obtainable, and the combinations desire to avoid the trade.[1]

National trade is often said to be affected by sales of raw or half-finished goods abroad under this system, since the foreign manufacturer is placed at a competing advantage; and both Germany and America have been much agitated over this question. But it is clearly a matter of course, if a tariff is necessary at all, that sales in less protected markets must be at lower prices; and the foreign manufacturer gains no advantage which he did not possess already.[2] The complaint could be well grounded only if combinations were able by their export to reduce the foreign price, and lessen the effectiveness of the home tariff. This is most improbable, to any extent that is considerable, since foreign prices in open markets are fixed by broad causes. It would naturally be the case that the foreign price must be "cut," since an occasional export has to take its chance against running contracts.

It is from the side of the importers that the complaint has mainly come regarding this practice, to which they have applied the name of "dumping"; and the complaints come from both free and protected countries.[3] But similar

[1] Vol. XIII., p. 725 *seq.* For the Steel Cartel *v.* Kollmann, and the *Reports*, 3153, p. 38; 3333, pp. 4, 6, 14; 3402, p. 7.

[2] "The managers of the (Austrian) wire-tack combination declare that they are unable to export at all, inasmuch as in order to reach the neutral markets they must meet the prices of Germany and Belgium, and that the cost of production in Germany and Belgium is so much less that this is impossible. They are able to keep their own home market only through the influence of the protective tariff." Cd. 1761, p. 331.

[3] At a meeting of the Iron Association of Upper Silesia in 1895 it was stated that "Germany has been made hitherto, on account of our

complaints could be made within any national market against the fluctuations of supply and demand. An equally opprobrious epithet has not yet been found for two other aspects of such fluctuations which are really more injurious; a sudden increase of foreign demand may raise home prices for the consumer, and embarrass the making of new contracts; or great activity in foreign markets may raise the prices of goods usually imported from them.

The zone system, we have seen, is less harmful with regard to foreign than to home selling areas; it is also more justifiable, if the tariff is really necessary. Within the home market it creates an instability due to freight protection or bargaining advantage—an instability which has not the same necessary relation to conditions of cost.

A purely statical analysis of price discrimination would show it, indeed, to be more beneficial to consumers as a whole, than the policy of sales at a uniform combination price on a high level. For when discrimination is practised, it is profitable to increase the output as compared with ordinary conditions of complete or qualified monopoly; and not only the total profits of the combination, but also the sum of the consumers' savings over the various markets, will be increased. The consumers where prices are raised will lose, but there are some consumers who now buy at low prices elsewhere what they formerly

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wide open door for import, the dumping-ground for the overproduction of foreign countries. It has been this flooding of Germany with the surplus of foreign lands that has depressed our prices and checked the course of development of our industries. Let us therefore close our doors, raise higher barriers, etc." The American market, in the words of the President of the Plate Glass Trust, "is considered a desirable dumping-ground for the surplus of European production, and exceptionally low prices are made by the foreign manufacturers for glass intended for the United States." Vol. XVIII., p. 163. Vol. XIII., pp. 229–30.

did not buy at all.[1] The statical analysis is, however, inadequate; the dynamic effect of the system, by its unequal treatment of buyers, is to cause shiftings, and fluctuations, and manifold industrial complexities.

"The doctrine of the righteousness of a healthy economic egotism," which was to reserve the home market for the combination, and to give steadiness to trade within it, was to be supplemented by the pushing of foreign trade under the same auspices. This was to be a normal and long period extension of activity, and it must have implied that the home tariff was superfluous so far as costs were concerned, although useful for the security of the domestic market. It has in fact been explicitly claimed that combination will render the tariff unnecessary, by the economies which a secure market renders possible. But this question of the pushing of foreign trade at fair prices does not seem as yet well founded on fact. Mr. Bolen says that Trusts do not do pioneer work, and undertake only such industries as have already a foreign trade. But this is not the main difficulty. It must be remembered that a national combination, fostered by a tariff, is apt to render the tariff superfluous in another way—by entering into province-agreements with foreign combinations of the same kind; each of them agrees to keep out of the other's markets. "It cannot be denied that the protection offered by Syndicates is continually being more appreciated, and that the commercial concerns are generally of opinion that the Syndicates offer to industry a protection which robs the customs duty of that force which it has so long enjoyed." Such a statement, our Consul remarks, "must imply international agreements between Syndicates which, if carried to their full length, might in the end render

[1] The same amount of surplus is also of more value to poorer consumers.

superfluous any national commercial policy. Such glances into the future cannot appear altogether fantastical, as there already exists a certain number of such private international understandings."[1] But agreements of this kind, operating with the force of a prohibitive tariff, as in the case of the British and American Tobacco Companies, cannot be good for the pushing of foreign trade when or if the tariff becomes also superfluous so far as costs are concerned; and the same is true if the international understanding is based on "participations" in neutral markets. Just as in a domestic Cartel the best producers have to submit to a backward pressure exercised by various methods, so in an international one export trade is repressed and its expansion hindered. If the tariff of any one country, having done its work in fostering national combination, became superfluous in respect of costs, that country ought to develop its foreign trade, and yet might be hampered by its foreign commercial understandings. It is, as we have seen, an indeterminate question what would happen if all tariffs were withdrawn after combination had taken place nationally in the chief industrial countries. At present, the establishment of agencies and intelligence departments by the combinations in foreign markets does not indicate an expansion of trade if these are restricted as regards the scope of their activity; and, so long as tariffs have not been rendered superfluous in respect of costs, it is always necessary to consider whether these agencies are a sign of healthy activity or of feverish anxiety; whether they are risk-takers or risk-makers.

Two facts are beyond question; combination has in its nature great regulative possibilities, and it is a force more easy to start than to stop. It will probably proceed in

[1] *F. O. R.*, 3042, pp. 32-3.

its development; but it has still to choose between its regulative and its monopolistic tendencies at home, as the above examples show; while it is deciding this problem, it is preparing for itself problems of foreign trade, which may prove the real test of its national advantage.

CHAPTER II

PUBLIC POLICY AND INDUSTRIAL COMBINATION

I

It is generally believed that the rise of industrial combination is an event which the State cannot regard with indifference. Whatever its economic advantages, its dangers are evident; a strong combination for the production of a staple commodity gives to a few men, who may have no other motive than private interest, an invidious power over national life and work. It is not only with reference to the supply of that commodity that the result is regarded with suspicion and fear; for combination which has succeeded in one sphere is apt to extend its grasp, first to allied spheres, and then into various ramifications of trade, where it fights with the strength given it by its mastery over its original field of activity. Further, the economic consequences of such concentration of power are felt to be no more important than those that are political and social. It is an evil thing when trade influences creep into the legislature, and private interests are made cumulatively stronger by their power to obtain secret or open protection or concession. Finally, the domination of industrial magnates is felt to endanger the virility of social life, and to relax the standards of everyday morality.

Although the force of public opinion can prevent undue

exaction, and can usually force private interests to a compromise with public expediency, it is commonly felt that this safeguard is not adequate, and that the rise of industrial combination requires from the State itself a new measure of active attention to the affairs of trade.

In regard to these affairs, the State may stand in the position of consumer, producer, or legislator. In nearly all cases, it is to some extent a consumer; public works have always been recognized as a duty; and in many countries the direct interest of the State in the conditions of the market for goods and labour is very considerable. It is not the sum of private interests which must then be protected, but the public interest itself. The State is, again, often a producer of exchangeable goods, for the sake of either revenue or morality; and although it may protect itself by monopoly of these goods, it is immediately affected by the costs of materials, and by the conditions under which alternative goods are supplied. In all cases, at any rate, it is called on to regulate for the sake of public utility the tendencies of commerce; if it is not itself directly involved as producer or consumer, its intervention is that of an outsider, and all general reasoning supports the conclusion that due cause for such outside intervention in private affairs must be clearly shown, and that the less of it that is necessary the better.

The position of the State as a consumer, though giving it a direct interest in market conditions, affords only a slight opportunity for regulation of these conditions. The first call on the action of the State comes from those who wish to see it extend its operations as a producer. This is the attitude of the Socialists, to whose reasonings it is claimed that industrial combination has given fresh justification. They point not only to the necessity, but also to the facility, of their remedy under the new conditions;

they find convincing proof of fundamental tendencies in this direction in the already numerous and increasing instances of public ownership and control.

There are two ways of regarding the relation of combination to the extremes of independent competition on the one hand and Socialism on the other. Some believe that, the independent system being outworn, there is no staying the modern tendency toward combination; but they sanction this result with very great diffidence. These are the believers in private enterprise who see no better remedy for the wastes and catastrophies of the independent method. The Trust, they think, has its dangers, but it at least maintains the great economic stimulus of private advantage, and stands between us and the greater dangers of Socialized production. They recall the fact that great agitation and distrust greeted the rise of such other forms of combination as Trade Unionism and Joint Stock; and they take some comfort in the reflection that these once threatening structures have been used with moderation enough to give them now an unchallenged position.

But, outside the absolute opponents of the whole development, there is another class of men whose attitude seems at first paradoxical. Socialists, whose *bête noir* is the capitalistic system with its tendencies to build up great private fortunes at the expense of the workers, are found welcoming a result which would seem likely, on broad grounds, to accentuate all such evils. But for two reasons their attitude is not illogical. They can point to the Trust development for proof of the inherent defects of independent competition; and they can indicate that the high degree of centralization obtained by Trusts is at once a source of grave social danger if the industries are left any longer in private hands, and the best preparation for

the handing of them over to public authority. Combination, they say, will be carried to that highest point where transference to the State will be both most necessary and most simple. Trusts are between us and Socialism, not as a barrier, but as a step. This step will be more easily taken in countries where Socialistic opinion is strong, and military organization conspicuous.

Thus the authors of *Industrial Democracy* "personally expect" that democracy will move "in the direction of superseding both the little profit-maker and the Trust by the salaried officers of the Co-operative Society, the Municipality, and the Government."[1] Mr. Gonner appears to take the same view. Professor Clark thinks that, as Socialism is better than Trust monopoly, it would be the only remaining possibility if private monopoly got the field. Less advanced views are held by Professor Ashley, and by M. de Rousiers.[2] Mr. Macrosty has defended this whole attitude at length, and with authority, and his statements may be taken as typical of the school.

"There is cnly one solution," he writes—"the public ownership of monopolies." All others are inadequate. The taking over of ownership by the State is rendered easier in proportion as combination has already been firmly developed. "It is plain that at any given time the industries of a country may be arranged in a rough kind of order according to their organization, and in that order it is most likely that the State will seek to communize them." The organization of industry in the hands of the State would hardly differ from its organization in those of a strong combination; provided steps are taken to ensure the efficiency of representative legislatures and executives.

[1] p. 824.

[2] Gonner, *The Socialistic State*, p. 185–8; Clark, *Control of the Trusts*, pp. 8–9, 54–55, 87; Ashley, *Economic Surveys*, p. 388; de Rousiers, *Trusts*, p. 327–8.

But this efficiency must be secured in any case. State control has the further advantage of mitigating the danger of industrial prostration by labour disputes turning on questions of private gain. Finally, there are already numerous examples to show the success and possibilities of public ownership.[1] The ethical advantages of communized production are broadly argued by Mr. Hobhouse.[2]

Thus we have both a deductive argument and a question of evidence. When we ask what is to be done with the Trusts and Cartels, we are asked in reply what we have done with waterworks and gasworks, with tramways, docks, and harbours, and what the Continent has done with railways, and other fiscal monopolies. We are found out in Socialism. Why are we not prepared to carry it further? For the defects of Socialism are often due to its being a partial system; the coexistence of private with public industries or services tends to lead to the exercising of corrupt influence on the latter by the former. This would cease under complete Socialism, local or national. The failure of the fiscal mines in the Saar district of Germany to avoid rebates, discriminations, and other evils of competition would indicate, not that mining cannot be communized with advantage, but that it must not be communized too soon, or incompletely.

In answer to this whole line of reasoning, which cuts the knot of the combination problem by one single and definite stroke of policy, we may consider first the question—Can we fairly quote the numerous existing cases of public ownership and control as evidence on the problem of combination? The answer is, I think, that we cannot; that these instances are beside the point, and are based on

[1] *Trusts and the State*, ch. xii.; cf. *Fabian Essays*, pp. 47–8.
[2] *Combination Movement*, pp. 62–73 (1st edn.).

special circumstances not applicable to the field where combination is developing.

The usual defence of combination is derived from the conditions of independent competition in a wide market; that is the essential feature of the case. We are therefore dealing, essentially and by definition, with goods that are freely transferable; to the ever-increasing ease of their transference we owe combination. But if there is one characteristic which more than any other marks the goods hitherto brought into public hands for their supply, that characteristic is non-transferability. To this special feature they owe both the natural tendency to monopoly in their case, and the supervention on this natural tendency of public ownership and direction.

This is quite evident when the goods supplied are of the nature of services, like transport. For the supply of services differs from that of commodities not only in their fundamental relation to the supply of any commodity at all; but especially in their inseparability from a specific kind of plant which renders them. One part of the supply cannot be transported so as to compete with another part. The phenomena of supply and competition in a wide market do not occur in the same way as when goods are freely transferable—are separable, that is to say, from any particular distributive plant.

But many of the cases of public ownership are in respect of goods, such as water and gas, not of services. Yet here again, though not so strongly or so necessarily as in the case of services, it is their non-transferability which gives them their special position.

Let us consider first, their monopolistic tendency, as distinct from their public ownership. We find, in explanation of this, a continual reference to "natural" monopolies, or "indivisible industries"; and if we seek further explan-

ation, there appears at first a paradox. The monopoly is "natural" because the industry is "privileged." This impossible result is due to the confusion of the question of monopoly with that of ownership. The real meaning of the "natural" tendency is revealed rather in the alternative name of "local" monopoly. The economic cause is, then, based on some limitation of the market. This is further shown by the fact that the industries in question are more commonly municipalized than nationalized.

To what is this limitation relative? Not, it is evident, to the demand; for commodities like water, gas, and electricity are in very wide demand. The limitation must therefore be relative primarily to some characteristic of the supply.

This characteristic is in the nature of the means of distribution; and in its turn it depends merely on the nature of the goods. They have great bulk in proportion to their value, and their cost of distribution would be high, were it not that they are of such a kind that they can be made to carry themselves. But this implies two things; first, that a prepared way must be laid out over the whole area supplied; second, that this way is of no use to carry any commodity except one, so that its whole cost falls on the producer of that commodity. Thus the supply of these goods becomes in its nature similar to the supply of services; for although the goods are in theory transferable, and could be separated from this particular distributive plant, practically they are not thus separable.

This is the basis of the limitation which creates a special tendency to monopoly in the supply of these goods. It implies great fixed charges, and lessened transferability. It leads to narrow markets, and a strong tendency to decreasing cost within these markets. It might be

profitable to extend this fixed distributive plant over wide areas if the goods could be supplied from only a few sources; witness for example the American Oil Pipe-lines. But there is no such natural limitation of the goods we are considering; and any one who sought to supply them from one municipality to another would have to reckon the cost of laying over the whole distance, to meet competition at the end of it, a means of transport differing from the railway in being of no use for any goods but his own.

Within any large consuming area, therefore, the burden of fixed charges, and the force of decreasing cost consequent upon this, tends to give a monopoly to the ablest or the first in the field of the producers; as between centres, transport is a barrier to competition, for the price of gas in Bristol would have to rise very high before it would be worth while to pack it in cylinders and send it from London; and the whole market becomes therefore split up into local and non-competing monopolies.

Narrow markets always give a tendency to monopoly within themselves so long as the whole demand is within a definite quantity determined by the costs of supply of the most efficient producer. Up to a certain point his costs lessen, and even to some distance beyond this he can undersell any rival. It may even suffice if he is first in the field, for a rival would have to risk fixed capital at lowered prices, without any extension of demand adequate to support two capitals.

The monopolistic tendency of a limited market holds good even if this market is not local, provided the goods are not bulky in proportion to their value. But when the market is not also local, the limitation is not so evident, and monopoly may only arise by combination after competition based on vague hopes and inadequate estimates.

If the market is also local, the limitation being more evident, the monopoly is more likely to be obtained directly and held without challenge.

The purely economic tendencies to monopoly in certain local industries are often reduced to the statement that the goods are "furnished in connection with the plant, and cannot be shipped."[1] But it is true of all goods whatever, that they can only be furnished in connection with their means of distribution. The plant which supplies a coat may not of course be either homogeneous or entirely under one ownership. The difference in point is that, while "transferable" goods are separable from any particular distributive plant, "non-transferable" goods are practically fixed down to one special means of distribution.

The same considerations hold good of such local services as transport; but, in their case, what is supplied is totally inseparable from the special plant which furnishes it.

But on these economic considerations there supervene others which are not purely economic. We have to ask for the reasons not merely of monopoly but of public control. There is no necessary connection between the two. The public authority might have taken over control of an industry not monopolized, but operating in independent establishments.

The ground of the further development is again the special nature of the distributive process—the fixed plant which is useful for one commodity only. For this implies a special right to interfere with the public domain, not in the common good, but for the benefit of one industry. It is this which is meant when such industries are called "privileged." In such cases, the monopolistic develop-

[1] Ely, *Monopolies and Trusts*, pp. 61–5.

ment is apt to be completed by public ownership or control.

Similar considerations hold good, on the national scale, of the control of railway transport. The monopoly tendency is due to the expensive and special fixed plant, and the force of decreasing cost; and it may show itself either directly, in the case of national markets or districts whose disposition is already known, or indirectly, by combination of independent systems, in markets the vagueness of whose capacity tempted an excessive investment.

The ground for public control is now not so much in the desire to avoid the interference of private interests with the public domain, since railway transport serves all commodities alike; as in the nature of the service, and its exceptional strategic position in the industrial system. There are very few goods which the consumer is bound to buy; but whatever he buys he pays for transport. The dangers, on the strategic ground alone, of private interest in this fundamental service are made evident in the history of the Standard Oil Company.

Even if private owners of the railways were not capable of intimidation by large monopolies whom they serve, and could secure their stock from being bought up for purposes of manipulation, the peculiar features of railway rate-making—the necessary distribution of charges in unequal ratios per mile over different parts of the plant—would make their position invidious and open to constant suspicion. "The equitable application" of this system "is a task so difficult and so delicate that, even supposing the best and most upright intentions on the part of the railway managers of the country, the power to make rates is larger than can safely be entrusted to any private

individual; and the practical abuses have been so great in the past as to point to the conclusion that, if the principle must be applied at all, its application can only be entrusted to State officials."[1]

Again, the importance of this public service renders it particularly undesirable that it should become disorganized through disputes undertaken on questions of the distribution of private gain; and in regard to labour, the possibilities of disputes or of exploitation leading to strikes are great when one of the parties seeks to use the power of a monopoly. The State may therefore deem it a wise precaution to anticipate the prostration of trade, which a strike in a public service body would cause, by keeping a hold on the conduct of such services.

If the economic basis of public ownership or control in these local and national services and industries could be narrowed to one idea, this would be the idea of non-transferability. It would be practically true of the industries, and completely true of the services in question. Because of this feature, certain markets are split up into local areas; certain services are sold at different rates in different places; a plant coextensive with the market is required, causing decreasing cost to act strongly for monopoly; the public domain is specially interfered with. All these special considerations will then vanish when we come to deal with goods which are freely transferable—that is, which are not tied down to a special and fixed distributing plant of their own, but move freely over the national or international markets. From its study of industrial combination, therefore, the American Census of 1900 rightly excludes the services and industries we have discussed, since they "do not possess the economic signifi-

[1] Acworth, *The Railways and the Traders*, p. 78.

cance which attaches to this method of production in other branches of industry."[1]

It is of course possible that, in the spirit of Socialism, public authorities may take control over the supply of freely transferable goods. We may consider the probable success, and the immediate cost, of such action within any reasonable time from the present.

When a public body takes over the supply of goods or services that tend by economic forces to monopoly, the transference to the public is not only more easily made, but the danger is avoided of the competition of public with private interest. Such competition is undesirable not only because of the special influences which a public authority can call on, but also because the private interest is taxed for the support of its rival.

Further, the goods and services which are now placed under public control are such as cannot be imported or exported, so that the State is called on rather to regulate local production than to engage in trade. So far as the public authority has any interest in tariffs at all, its interest is to keep them down for the sake of its own raw materials.

The State or municipality is again given a certain power to steady the labour market. For the most advantageous seasons in which to repair and reconstruct those fundamental services and industries with which it concerns itself, are the periods when there is a lull in the industries which use these services and goods. The German industrial crisis of 1902, for instance, was considerably alleviated by the demand for labour on the national railways.[2]

Let us suppose, however, that the combinations are to be taken as a step toward a general socializing of indus-

[1] Vol. VII., p. lxxvi.
[2] Sayous, p. 25; Marshall, p. 303, note.

tries, and communizing of profits, such as is both hoped for and foreseen by the authors already quoted. To speculate on the detailed process of taking over an industry is difficult; but we may make the attempt, since the belief that such a process will take place influences opinion with regard to the combinations.

We must note first that all industries do not combine with equal readiness. Either the State must take them over one by one as economic forces consolidate them; but in this case the dangers of municipal trade, the influencing of public officials on behalf of private interests affected, will appear on a national scale. Or it must wait until the industry least liable to combination is combined; but surely this scheme is impracticable.

Again, what would be the effect on national industry in the meantime if public policy regarded combination as antecedent to socialization? According to the method in which the transference was to take place, either combination would be hastily and artificially undertaken, thus saddling the State with organizations of little efficiency; or combination would be hindered and concealed to avoid the transference altogether.

It is impossible to foresee the incidents of foreign competition; for nations are as unequally prepared for Socialism as industries for combination. The ideals of Socialism are opposed to the methods of tariffs; yet such a philosophy might embarrass it when it realized itself in this nation but not in that.

It is, in fact, from the foreign relations of governments that we derive our final attitude toward a Socialist development of economic combination. There is no time, so long as the international stress lasts, and occupies the best energies of legislatures, for industrial Socialism. The burden of government would be intolerably increased if

new officials were answerable to the legislature for all the complications of the conduct of national industries.

At present, these relations have a double influence on national industry. The part played in them by tariffs is favourable to the growth of large combinations; while they themselves continually distract national energy and attention from the necessities of industrial, and thus of combination, control. While they remain in the forefront of politics, tendencies to Socialism are held in check. Thus we cannot regard the combination movement as part of a communist development, either as to its probable outcome within any period of which we can speak with even reasonable conjecture, or as to its own underlying economic significance.

We have waived all questions of the facility of the conduct of industry by public authorities. The argument is difficult and problematical. Some authorities hold, with Mr. Hobhouse, that men can be brought to act for the public no less strenuously than for private interest. Others believe, with Kollmann, that none of the dangers of combination is equal to that of Socialism; that "the State would take a century to carry out what combination has done for industrial organization in a few years."[1] Our point is only that neither inductive nor deductive reasoning can be used fairly to assimilate the industries in which the problems of combination are pressing, to those which already have silently come into the hands of public authorities; and that the difficulties of such a transition from combined production of transferable goods to State ownership, are too lightly passed over in such expositions as were quoted above.

[1] Kollman, pp. 49–50.

II

It remains to consider, then, what measures, short of ownership, the State can take for the safeguard of the people against the dangers of combination. This question of legislative control is prominent at present in both America and Germany; little is heard of it as yet in England. This is probably to a great extent due to the fact that in both the former countries special conditions are operative such as the tariff, the position of the State as a consumer, or certain legal complications of the Federal constitution. For the first and last of these the State is responsible, and has a duty as regards their proper adjustment. These special conditions ought not, however, to obscure matters of principle, and some of these appear to have escaped attention.

The public authority ought in the first instance to come to terms with itself on the question whether industrial combination is or is not a national economic development. At present the position is somewhat incongruous. For the authorities who are most competent to decide this question—the practised economic experts of the nation—tend on the whole to the belief that Trusts and Cartels have, in the American expression, "come to stay;" one or two even assert that, not merely combination, but monopoly, is the normal outcome of modern business conditions.[1] "Combinations," says Professor Clark, "have their roots in the nature of social industry, and are normal in their origin, their development, and their practical working."[2] If this is so, the State places itself in an altogether untenable position by the enactment of laws against combination as such—laws, for instance, so general

[1] v. Baker, *Monopolies and the People.*
[2] *Political Science Quarterly*, Vol. II., p 55.

in their terms as the Sherman Act of 1890. This Act is technically directed against "monopoly, or the attempt to monopolize;" but it can be, and has been, used against combination which was well within the limit of monopoly. If there are economic tendencies, the State cannot prevent, although it can harass them; and the belief of economists in the possibilities of combination appears justified by the utter failure of the American laws to stop the development, although these laws now fill a bulky volume. More than this, even if there were a greater divergence of expert opinion than there is, it would not be the function of the State to prejudge the question, and to set up a standard of economic orthodoxy. The position is an intolerable one when the course of industrial development stultifies the statute-book, monopolistic associations flourish in face of the law, and anti-Trust proposals have exhausted their function when an electoral campaign is over. The epitaph of such unsystematic procedure is written by the American Industrial Commission in its Final Report, which declares that "the strongest forms of combination appear to have been fostered by laws intended to prevent them."[1]

Combination is not easy to undo; and if combination laws apply to organizations already carried out, their result is either to drive the agreement underground, or to shake industrial stability by more drastic measures. On the other hand, if these laws apply to combination in the making, as the Sherman Act applies to "attempts to monopolize," it must be indeed difficult to determine at what stage of absorption a definite monopoly tendency can be held to appear; and again, when one or two large organizations come to produce for a whole nation, the ordinary process of competition between them is inherently a monopoly endeavour, while the cessation of this process

[1] Vol. XIX., p. 605.

would be a monopolistic agreement, so that the law would be left in a dilemma.

The history of combination laws is not a very distinguished one. The Trade Unions which were once forbidden are now the ordinary assumption of economic reasoning on labour questions, and the source of our official information. It is to be hoped that no similar prejudgment of economic tendencies will take place in the case of Trusts and Cartels. To attach a stigma to what may be a normal evolute is to render the worst service to industry; to attach it to the outcome of artificial conditions is less logical than to operate on these conditions.

On the other hand, if general combination laws are likely to be unwise, more specific measures, applying to certain practices of combinations or monopolies, have also their difficulties. For the methods of industrial combination are in constant change, and it is always possible, as experience has shown, to vary the form of structure or policy so as to satisfy the letter while breaking the spirit of any specific measure.

Corporation lawyers are permanent features of large American combinations, and some of the most noted members of the Bar, now holding public positions, have been corporation lawyers in their time; it is not likely that the legislature will be able to foresee or codify the kaleidoscope forms according to which joint-stock can take shape; or to defeat the ingenuity of Trust lawyers, who find in a specific law regarding structure or operation merely an exercise for their skill. It has further to be remembered that the Trusts' power in capital enables them to offer a strong passive resistance to legal procedure on a doubtful point, so that, if the issue on which they are sued is one of civil law, they can wear down an independent by the creation of long delays on technical matters. And it is

plain that every failure to press an action against a Trust discourages others from making the attempt; so that in time a specific law becomes, by a cumulative force, a dead letter.

Our own Departmental Committee of 1895 has indicated further difficulties in the attempt to focus business possibilities in the words of a Statute.

"The requirements of new legislation in connection with commercial matters are sometimes difficult of interpretation, and to visit non-compliance with such requirements with criminal liability, or to treat errors of judgment as criminal, is to be deprecated. Such a course may have the effect of deterring men of character and means from accepting the position of a director or manager of a Company." The Committee proceeds to quote a similar opinion from France. "In the business world it is thought that abundance of penalties does not particularly stop to any degree persons determined to do anything to make their fortunes by intentionally ruining their neighbours, but that it keeps out of companies honourable men who are afraid of committing errors without knowing it." [1]

They report again that, in view of the great amount of technical knowledge which specific company laws would require if they were to be effective, and the unlikelihood that public officials would have that knowledge, the passing of specific but imperfect measures would imply the tacit consent of the government to acts not coming within the measure, and which officials did not have the requisite power or knowledge to control. This fact was indicated by Grunzel as regards German law, but our own Committee had foreseen the same danger, and writes in these terms:

[1] *Report of the Departmental Committee on the Companies' Acts*, 1895, sect. 8.

"Your Committee may observe that they have dismissed from their consideration every suggestion for a public inquiry by the Registrar or other official authority into the soundness, good faith, and prospects of the undertaking, at this or any other stage of a company's formation. To make any such investigation into the position of every new company complete or effectual would demand a very numerous staff of trained officers, and lead to great delay and expense, while an incomplete or perfunctory investigation would be worse than none. It would be an attempt to throw what ought to be the responsibility of the individual on the shoulders of the State, and would give a fictitious and unreal sense of security to the investor, and might also lead to grave abuses."[1]

If then the State cannot without danger either forbid, or circumscribe, or by special inquisitorial registration sanction the combination movement, there is left for it only the duty of ensuring that the movement will owe its success or failure to the action of the openest competition with other methods. At the present time, it is by the adoption of such a policy that the Trusts and Cartels will be most fairly tested. It is necessary, that is to say, to recognize that the success under fair conditions of Trusts and Cartels will not mean that the era of competition is over; but rather that a new form of organization has greater competitive power than an old one.

Among the causes which foster the growth of combination, over which the State has direct control, the most important is the tariff. We saw that both offensive and defensive combinations tend to raise prices above the normal level; so that a national combination not normally formed could have at the outset no efficacy against foreign

[1] *Ibid.*, sect. 42; cf. Walker, pp. 308–9, for the suggestion of a Registration bureau.

competition unless it enjoyed some degree of protection. We saw further that, although such protection may be necessary to the foundation of Trusts and Cartels, its gradual reduction would not necessarily dissolve them; and the main hope of economists who seek a systematic control of the combinations is therefore to make this reduction test the real strength of the combinations.

This is Professor Clark's method. But he suggests that a too hasty reduction of tariffs will injure independents more than the combinations; and he believes that the tariff should be so calculated as to enable new competitors to bear the specially high charges incurred in making a start. In the same way Grunzel asserts that a tariff which simply protected the Cartels would be injurious to the independents.

Now either combination or independent production is the more efficient method. Suppose, as the above argument implies, that the former has the advantage; why should the latter be maintained also? Because, it is replied, it maintains an outside competition which will prevent the abuse of power by the combinations. But is it not clear that the same check could be got from foreign supply, if the tariff were simply protective of the better method? So long, again, as a margin is maintained by the tariff above the costs of the more efficient method, either that method will drive out the less efficient in spite of the tariff, or will combine with it to obtain the margin.

There is a special difficulty in applying this general remedy to the Cartels. For, since they are terminable contracts, a tariff reduced so as to be simply protective of the combination might be less than protective of the independents after dissolution. But this would encourage longer contracts, and therefore avoid the uncertainties of the periods of dissolution; and in any case, the fact that

the combination had been barely protected would have kept independent competition away while the agreement was in force, so that at the time of dissolution the market would be in sole possession of the now independent firms, which would be more able to gain the economies of running full, than if outside competition had also been fostered in the interval. The adoption of Liefmann's proposal—which is in essence equivalent to Professor Clark's—that the State should subsidize outside competition on condition that it remained outside, is liable to leave the market again over-stocked when the Cartel is dissolved.

By such a tariff policy, Professor Clark suggests that the Trusts will be ranged on the side of the consumer, for their interest will be to cheapen supply still further, so as to create a resultant over-protection. This stimulus would remain, if revision of the tariff were made only at certain intervals; though it is to be noted that, so far as these improvements depend on combination as such, they would be made also by foreign combination, and the resultant over-protection would be destroyed. But many of these improvements doubtless vary with national conditions, and the stimulus toward such would remain. Professor Clark's proposal is therefore substantially adopted by the American Commission.[1] But in a country like America, where so

[1] The sixth recommendation is as follows: "That if a department of commerce and industry shall be established, one of its functions should be to call attention from time to time to such economic changes in the world's progress as may suggest tariff modification, and also to such commercial opportunities as may suggest reciprocal legislation or arrangement, and further to any evils incident to combinations which changes in the tariff will avert." The seventh recommendation suggests that steps be taken at once to discover by what steps the tariff can be reduced to a simply protective basis. (Vol. XIX., p. 651.)

The question of Protection as such is not under discussion in this Essay. It has to be taken for granted that certain countries desire, for various reasons, to be producers of some articles which might be got more cheaply abroad.

large a percentage of revenue is obtained by the tariff, and income tax is not allowed to be levied, other considerations than the control of Trusts enter into tariff legislation.

So far as foreign combinations are formed in defence against tariffs, they would be influenced by the above policy. But so long as a margin of productive advantage remains for a free country, there is the condition of an aggressive combination, and this the State is not likely to control by an import bounty, which would be the equivalent of Professor Clark's scheme. But the control of combinations in England by foreign supply is at present adequate; for if foreign tariffs were made merely protective many of them would be abolished.

The second problem to which experts call the attention of the State, if it is so to control the combination movement as to ensure its being a true economic development, is the local discrimination of prices. Supposing it is agreed that this policy is injurious to national industry, it is still not easy to indicate practical methods of distinguishing discrimination from local fluctuation. Of two firms one may have to lower its price, while another may not; when they are combined, this is apt to be called "discrimination." Is not a great organization, carrying heavy risks, justified in defending itself against new competitors who may have unwisely entered the market at the risk of over-stocking it? What other method of defence is there, and how can we distinguish an offensive from a defensive cut in prices?[1]

Professor Clark, and the American Commission, propose to remedy the fluctuations thus caused by the enactment of laws making discrimination criminal and penal. The administration of such statutes appears beset with difficulty;

[1] The German fiscal mines in the Saar district themselves discriminate prices to meet competition, and give rebates on a definite system. (*v.* Walker, *op. cit.*, pp. 203, 276–8.)

the real charge is not against the low prices which meet competition, and which ought therefore to satisfy economic conditions, but against the power to levy higher prices elsewhere, and to obtain in this way a subsidy which supports a monopolistic attack.

The tariff legislation already suggested by these authorities appears likely to be indirectly more efficacious than the law can be directly; it can attack the high prices first. Discrimination is practised because of the constant temptation of new competition to arise in face of high combination prices; it is even claimed by Liefmann that this is a good thing, since it keeps the Cartels energetic. But it is clear that, if the aim of fiscal legislation were to protect simply the more efficient method, the constant local and temporal fluctuations due to the meeting of new competition would thus far be alleviated. The discrimination which depends on the subsidy of protected prices in certain localities can by the same means be rendered less practicable for long periods.

The more systematic discrimination of the zone system does not rest on tariffs so much as on freights. It is often held that extractive industries have a special claim on State intervention; on the other hand, it may be said that where these centres of output are few, a certain restriction of supply is not undesirable in order to prevent a too sudden using up of limited resources; as in the argument of Jevons regarding our coal supplies. Discrimination under the zone system cannot be shown to be aimed at any particular competitor; the law does not appear to have power to compel a producer to give up an advantage due to location.

Great fortunes may mean great services. They are not in themselves invidious, and they are less formidable in a country where there is no primogeniture. Americans are proud rather than otherwise of the fact that nearly ninety

per cent. of the men who have become millionaires began at the foot and won their own success. A rapidly developing country puts a premium on pioneers, and if industrial combinations were a new method of public service there is no evidence of popular objection merely to their magnitude, and none that a statute against combination as such is a real reflection of the state of public opinion. A great many facts regarding the concentration of wealth will always be regarded as trivial; Trusts and Cartels will never be vindicated because the fortunes derived from them are applied to philanthropic ends or the foundation of Universities; nor can it be regarded as relevant that the consumer might only have spent a greater purchasing power on goods which did not raise the standard of life, as it can be raised by the benevolent administration of the profits of Trusts.[1] A democratic country will never regard it as the sovereign function of a few men to dictate its morality. The combinations will stay according as they can compete, as the general sense of the community approves their methods of competition, and foresees in the future no power upon prices that is mainly resourceful and strategic.

Another force will require to act from the side of the producers themselves. A great deal must depend, during this period of transition, on the general morale of the class of men from whom the *entrepreneurs* of the immediate future are chosen. It cannot be expected that this morale will be of the finest fibre in a country where trades and professions are marked off from each other. That line is least sharply drawn in America, and the social standing of business is perhaps higher there than in any other country. It has ceased to be true that commerce calls for a less

[1] *v.* Jenks, *Political Science Quarterly*, IX., 498, and Vol. XIX., p. 632–4, of the American Commission for these suggestions as to the application of Trust dividends. Contrast Ghent, *Our Benevolent Feudalism.*

strong intellectual effort than do the professions; its effort is synthetic rather than analytic, but the power to face responsibilities and accept risks is not less valuable to the State than the power to take intense views and make distinctions. It would be a matter for despair if it could be shown that in America, where education costs more than the maintenance of military force, and there is a premium on technical education, a lower standard of business morality was prevalent. Americans do not admit this, and are on the whole satisfied with the way in which the Republic has controlled a heterogeneous population during a period when there has been a rush to secure the sources of supply. There and on the Continent, however, the combination problem has placed both public opinion and public authority closely on the watch over industrial affairs. The best advice for the period of transition is to avoid passion, and prejudgment, and the terrorism of mere size; to perceive that the extortion of a few strong producers can be remedied otherwise than by drastic interference with economic tendencies. If the combination movement comes to realize itself fully in time, so that industry concentrates to a high degree its strength, its risks, its powers for good, and its powers for harm—then, to revert to the metaphor of leadership, a nation's best hope is "that a better conception of the place and dignity of industry may induce the best men of the nation to become captains in this war."[1]

[1] Smart, *Contemporary Review*, 1888, p. 701.

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